Issue 80
PS
1959 Series
THE PREVENTIVE MAINTENANCE MONTHLY
Paul Revere
SILVERSMITH
WILL EISNER
"was ye frayed cinch previously reported on your DD Form 110?"

For Battle...
What Counts?

Spit-'n-Polish or Dirty Work?

This is the story of two combat outfits.

There was this first outfit—a tank battalion—which had the cleanest crews and mechanics you ever saw.

Spic-and-span they were . . . uniforms always neat, pressed and clean . . . even at the end of a day's maintenance work on their tanks. And they made sure their TM's and other publications were kept on the shelf where they wouldn't get messed up. Real neat. Always ready to stand a spit-and-polish inspection.

Then, over on the other side of the post was this other tank outfit which didn't worry too much how their crews and mechanics looked—while they were at work on their tanks.

Sure, they got dirty and greasy, and their work uniforms seldom had that "fresh pressed" look. ('Course, they changed to clean and neat uniforms when they were away from their maintenance work.)

And their TM's . . . man alive . . . they were a sight! Grease, thumbprints, torn—practically worn out; they had to get new ones real often.

Funny thing, tho. Army gave the post a surprise alert, and the battalions had to get ready and be on the road in five hours. Not only that, they had to make a 50-mile road march to break some strong "enemy" resistance.

Wha' hoppen?

That first outfit fired up with great dash and show. The general was impressed with what he saw: Twenty-one tanks never even moved; nine more conked out in the first ten miles; about half of the battalion's tanks actually reached the "combat" area. All these losses, and the "enemy" hadn't even fired a shot!

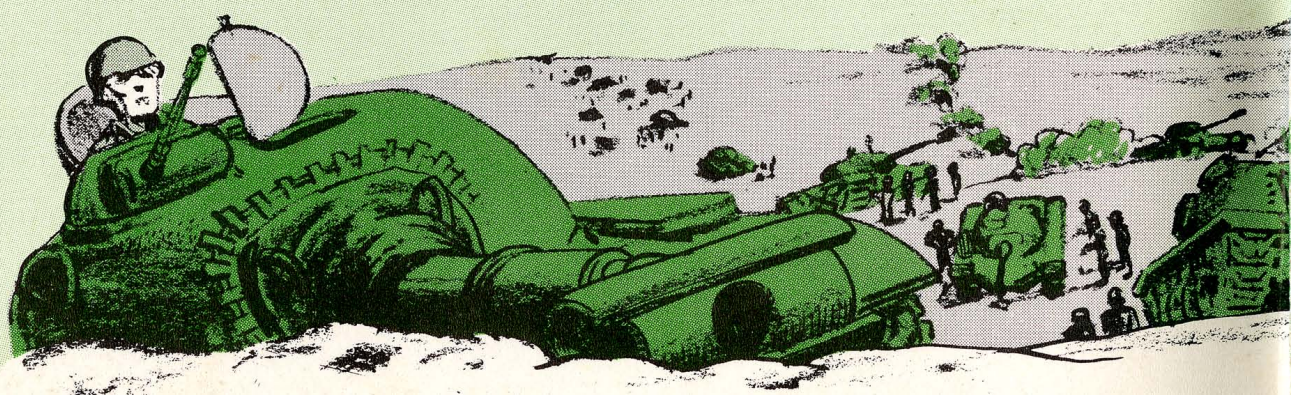
How about the other battalion?

Every tank moved. A couple had brief delays along the route, but the troubles were minor and were fixed by mechanics who knew how to do their job.

The payoff:

The entire battalion reached the objective and cleaned up the "enemy" resistance.

How will your outfit perform when you get the word "Go!"?



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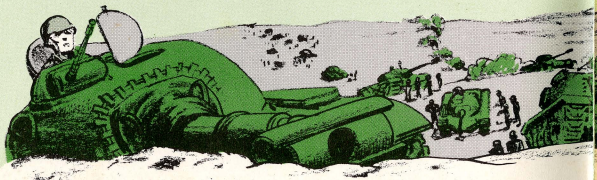

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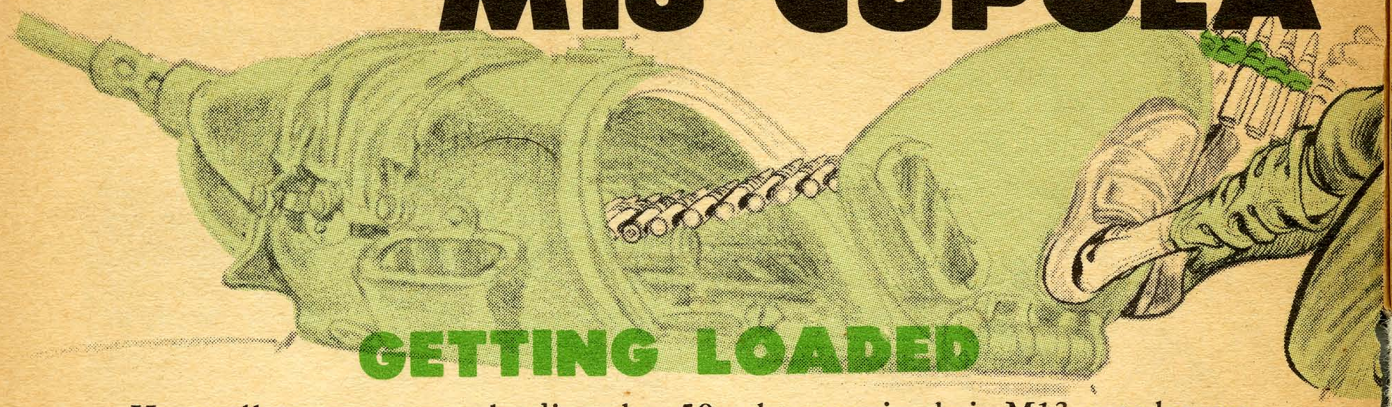
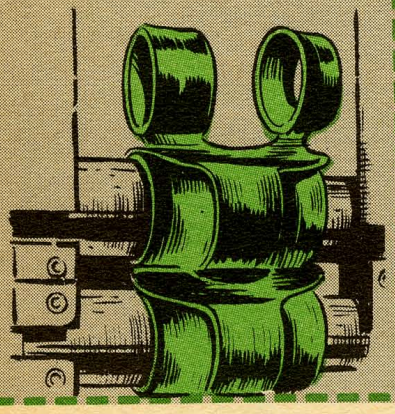
M13 CUPOLA



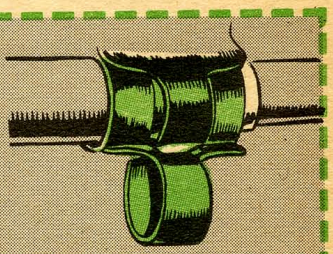
GETTING LOADED

Hear tell some gunners loading the .50-cal ammo in their M13 cupolas are running into trouble by misinterpreting the info on page 86 of TM 9-2300-203-12. To keep this from happening and until the full story can come out in a change to the TM follow this deal which'll make you the best gunner in your M59 APC or M84 SP 4.2-in mortar.

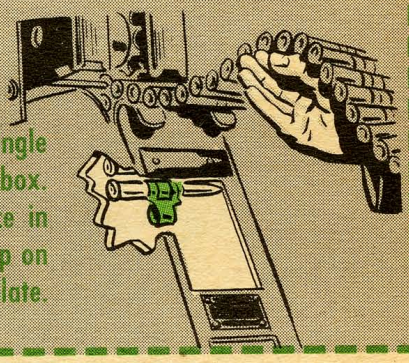
First . . . you want a double empty link at the end of the ammo belt that's gonna be fed into the weapon . . .



. . . and a single empty link at the other end. If you have to, take out cartridges so's you wind up with the belt this way.



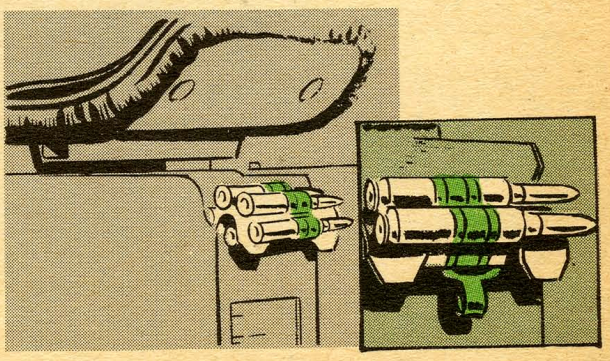
OK . . . now you feed the single empty link into the ammo box. Make sure the cartridges face in the same direction as show up on the ammunition instruction plate.



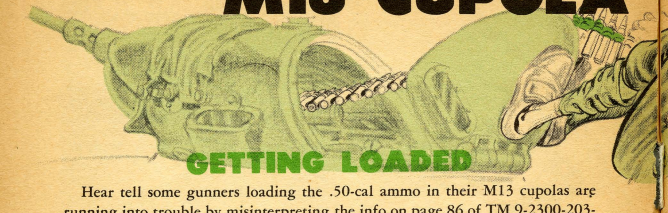
Keep feeding the belt into the box until the cartridge with the single empty link can be pulled through the opening at the rear of the commander's seat and hooked under the belt holder on the outside of the ammo box.

The reason you hook the link on the box, of course, is so's you can couple other belts to it and feed the ammo into the rear of the box.

Getting back to where we were . . . once the one end of the belt is hooked,



M13 CUPOLA CAPERS



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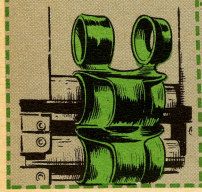

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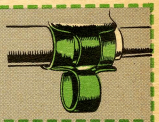

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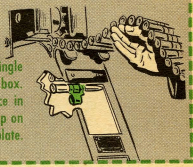
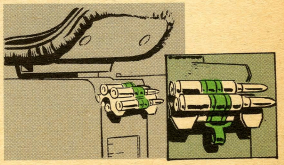
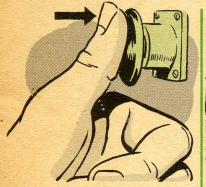


Keep feeding the belt into the box until the cartridge with the single empty link can be pulled through the opening at the rear of the commander's seat and hooked under the belt holder on the outside of the ammo box.

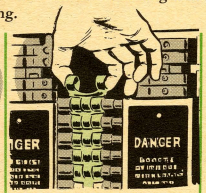


The reason you hook the link on the box, of course, is so's you can couple other belts to it and feed the ammo into the rear of the box.

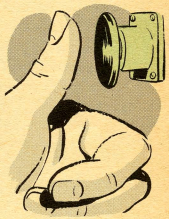
Getting back to where we were . . . once the one end of the belt is hooked, you keep feeding the belt into the box—stacking it in neat layers on the bottom of the box as you go along.



When you come to the double empty link, push in the booster anti-roll back button . . .



. . . take hold of the double link . . . and carefully pull the belt up over the ammo booster motor sprocket and into the ammo chute.



Then let go of the booster anti-roll back button.

And, as the TM says, if the leading cartridge jams in the booster housing, pull the belt downward until you get rid of the jam.

MISSING PARTS

So you've been trying to latch on to some parts for the .50-cal machine gun in your M13 cupola . . . and you can't find them listed in TM 9-2300-203-20P.

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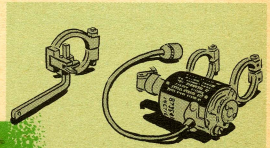
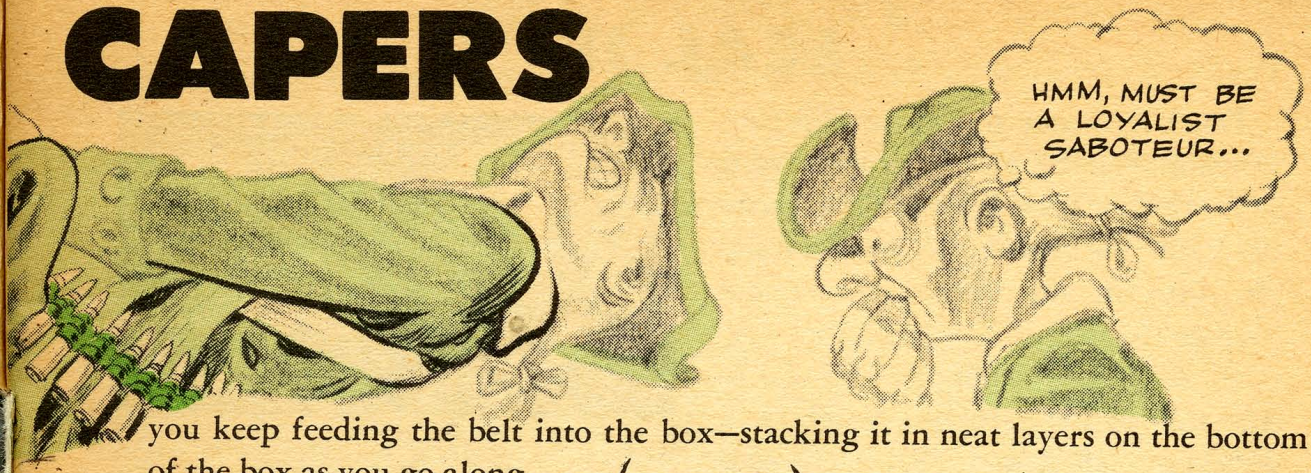


SOLENOID: FSN 5945-630-0901.

HAND FIRING TRIGGER: FSN 1005-626-9176.

CAPERS



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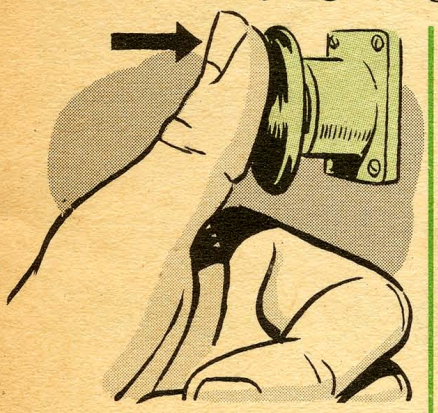

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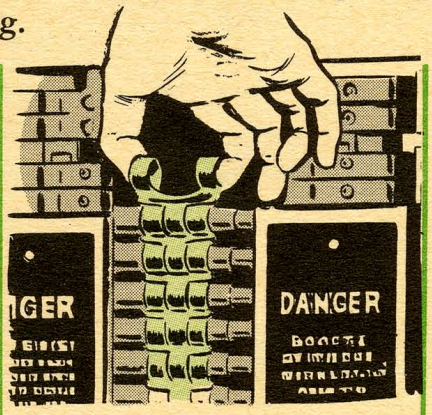

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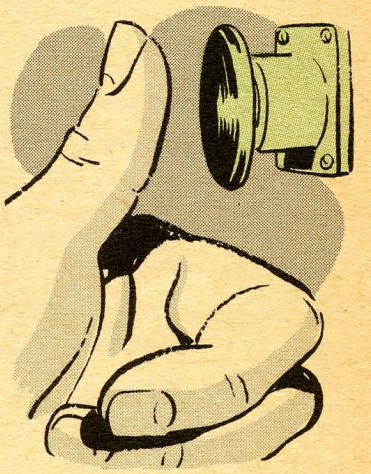

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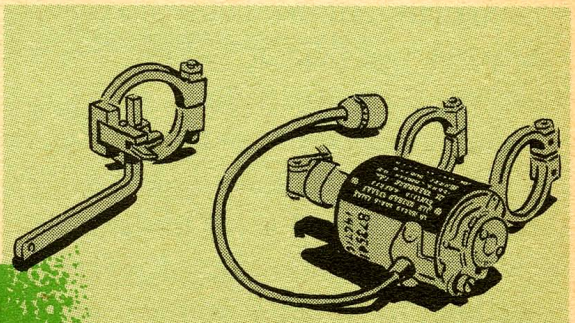
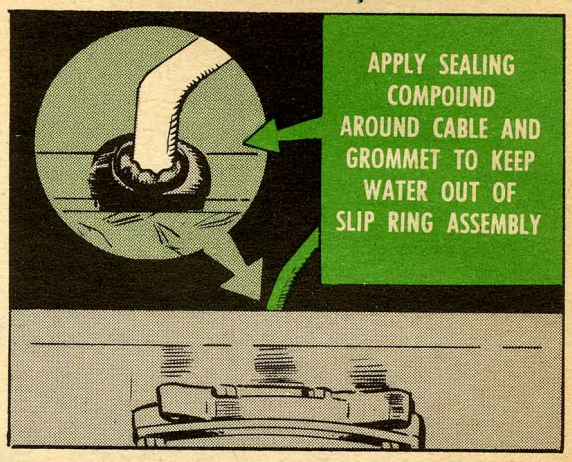


SOLENOID: FSN 5945-630-0901.

HAND FIRING TRIGGER: FSN 1005-626-9176.

SEAL IT

Don't let water slip in the slip ring assembly for the M13 cupola in your M59 APC or M84. It gets in the assembly 'cause the cable outlet from the slip ring into the ammunition system conduit isn't sealed.



So the answer is simple—you seal it. The stuff to use is Sealing Compound, Asbestos (GK), and FSN 8030-264-5114 will get you a 25-pound container from Ordnance.

All you have to do is press the compound in and around the cables and grommet . . . and put enough of it on to give you a build-up around the cables.

While you're working the compound in, remember to keep it out—of the slip ring assembly.

INFRA-RED PERISCOPE POOP

Dear Half-Mast,

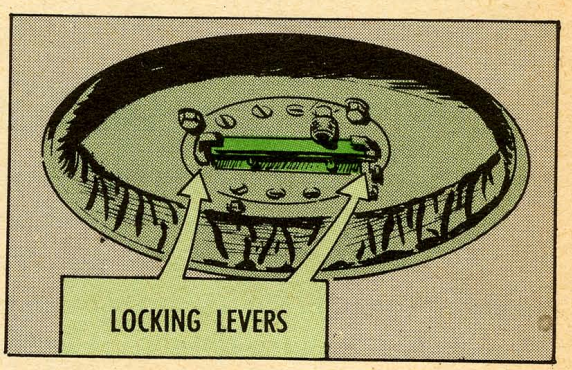
We're an M59 unit having troubles requisitioning parts or complete replacements for the infra-red periscope mount that sits in the driver's hatch cover. We can't seem to find the mount in the supply manual for the vehicle.

Our support supply unit says just turn in the old ones as FWT (fair wear and tear) and requisition new ones. But how?

PFC J. J. M.

Dear PFC J. J. M.,

You got a right to be lost. You see the info for this infra-red periscope mount got left out of the current M59 supply manuals. This is being corrected.



Actually, all that holds this periscope in place is a pair of locking levers attached to the hatch door—so it's not a mount as you'd normally think of one.

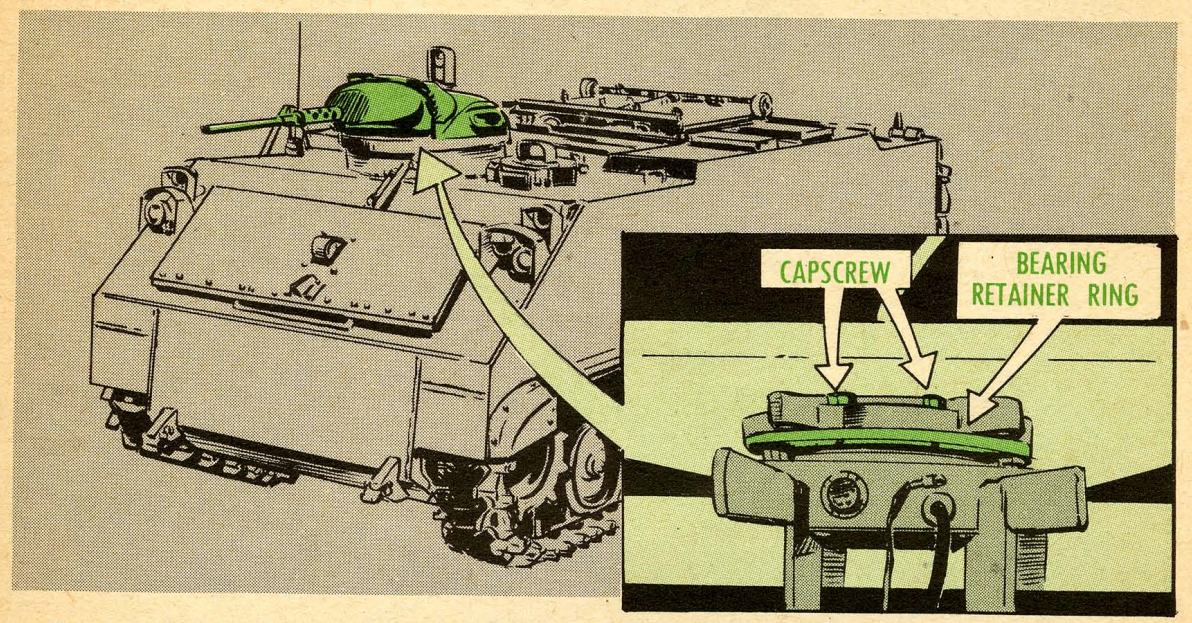
It's called a Release, quick, driver's door assembly and goes under FSN 2590-590-0241. You'll get it less guards.

The depots have this release, so you should be able to get it through the usual methods—without it being bounced back. Since the mount's supposed to be an Ord 8 item, you'll have to ask your support unit to order it for you.

GET PUNCHY

If it hasn't happened on your M59 APC or M84 SP 4.2-in mortar yet, don't think it won't.

We're talking about the way some outfits have had loosening troubles with the eight ¼-in capscrews that hold the bearing retainer ring to the housing in the M13 cupola. Vibration plays hob with those capscrews and they just plain loosen up.



It wouldn't be bad if only the capscrews worked loose. But, once that happens, you're opening the door for the electrical brush set and bracket and commutator assemblies to be damaged, among other troubles.

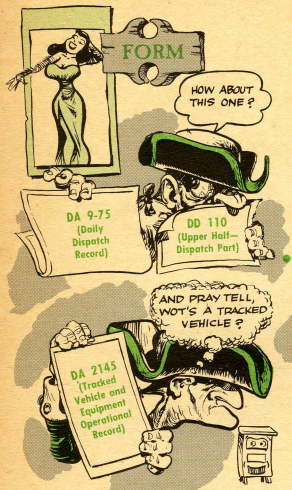
The way to keep those capscrews tight is to get your company mechanic to take a small center punch and lightly stake the bottom surface of the bearing retainer ring into the capscrew threads.

In case the brush set or assemblies have been banged up already, here's the info you want to give to your support unit so they can get replacements.

BRUSH SET, ELECTRICAL:	FSN 1005-608-1156
BRACKET ASSEMBLY:	FSN 1005-631-7727
BRACKET ASSEMBLY:	FSN 1005-631-7728
COMMUTATOR ASSEMBLY:	FSN 1005-608-1361

CHIEF CLERK
CONTINENTAL ARMY
DROOPY
ARE YOUR (AHEM) KOFF... DRAWERS GETTING TIGHT? DO YOU OFTEN WISH YOU COULD OPEN AND CLOSE THEM WITHOUT ALL THAT YANKING? COULD IT BE THAT A REDUCING DIET WOULD TAKE CARE OF THE SITUATION?...
MAYBE YOU'VE BEEN OVERLOADING THOSE FILE DRAWERS WITH FORMS THAT COULD HAVE BEEN TOSSED INTO FILE 13. SO YOU WON'T GET CAUGHT WITH DROOPY DRAWERS, HERE'S SOME "WHEN TO PITCH" INFO ON PREVENTIVE MAINTENANCE FORMS. AR 345-292 (2 AUG 55) GIVES YOU THE SCOOP.

DROOPY DRAWERS

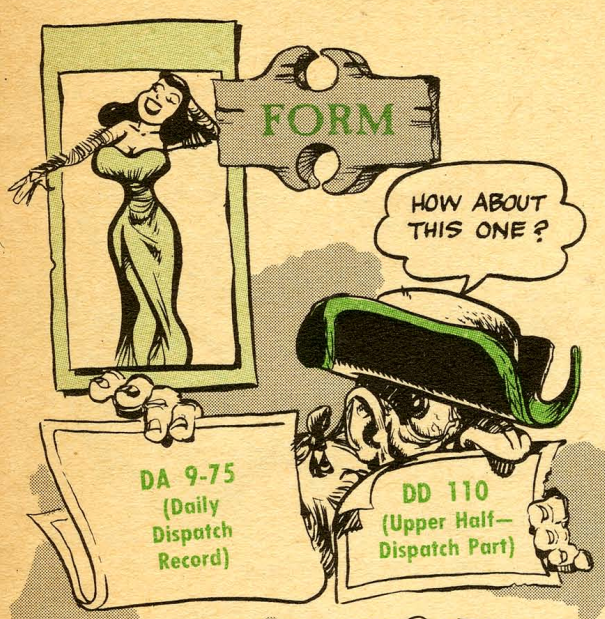


Keep both for two months and then destroy unless file has to do with a vehicle that's been involved in an accident and all action's not been completed by the claims officer.

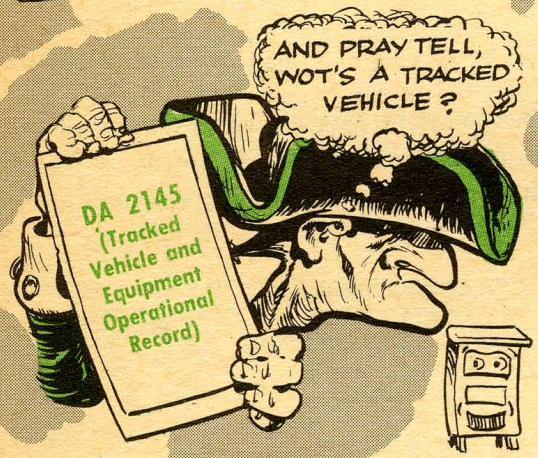
Reports which show no uncorrected deficiencies or which show that deficiencies have been recorded in the current work file should be destroyed after review by responsible supervisory personnel.

Daily inspection reports that show no deficiencies or corrected deficiencies should be destroyed after they've been reviewed by supervisory personnel. Any deficiency not corrected will be recorded in the current work file and the daily inspection report marked CWF. The signature of the mechanic doing the inspection or service should appear in the "Inspected By" space. After deficiencies have been recorded in current work file, daily inspection report may be destroyed.

DRAWERS



Keep both for two months and then destroy unless file has to do with a vehicle that's been involved in an accident and all action's not been completed by the claims officer.



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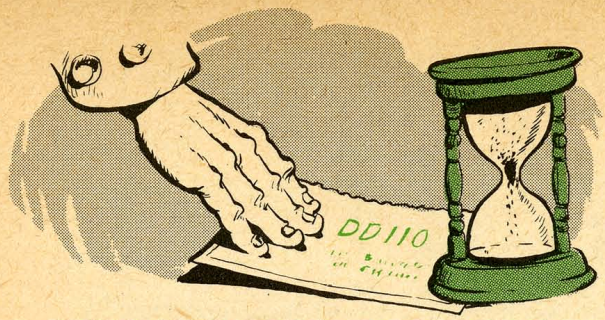
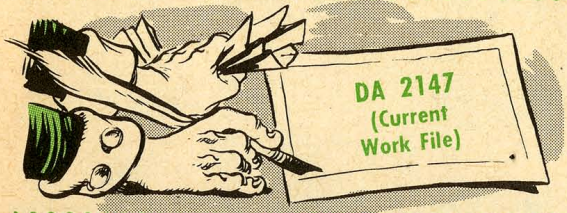


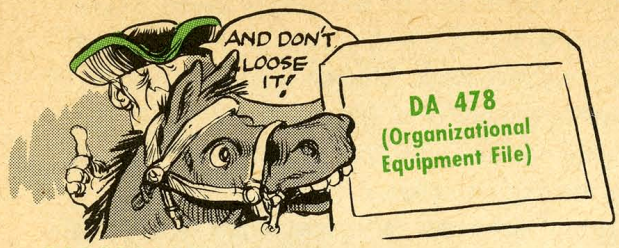
If there're existing deficiencies on Engineer equipment, keep until the next scheduled maintenance service, at which time the deficiency will be recorded in the remarks section of DA Form 464 and then destroyed.

File in DA Form 478 until completion of the next quarterly service and then destroy.

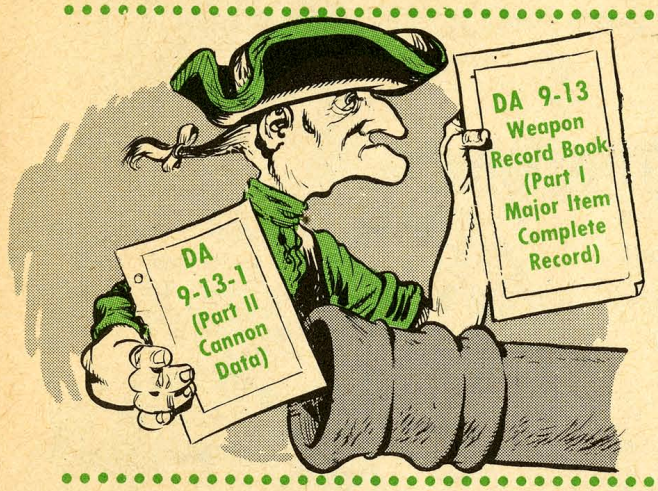


When a sheet is filled and all required repairs listed on the sheet are completed, the current work file sheet may be destroyed and a new sheet started.

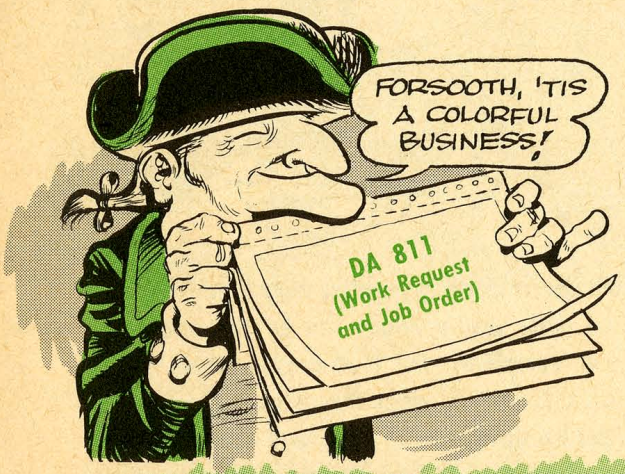
Destroy after 6 months.



Remains with the unit to which the equipment is assigned until the equipment is transferred, sold or salvaged. It goes with the equipment wherever it goes.

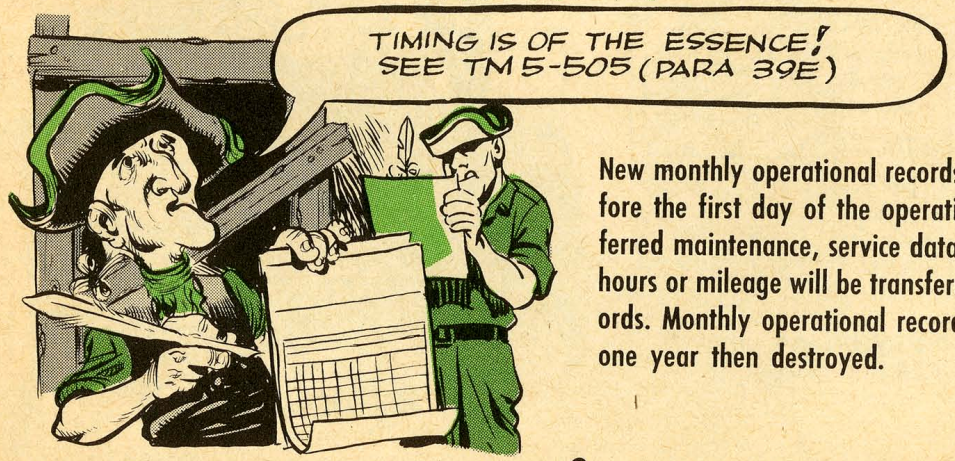


Part I stays with the carriage or mount during serviceable life. Part II stays with the tube or cannon until it's condemned. When weapon, tube, or cannon is condemned, destroyed, turned in for salvage, or otherwise lost from service, a notation will be made in the record book by persons who condemned the material. These books and all other books separated from weapons will be forwarded through channels to the Ordnance Weapons Command, Rock Island, Illinois, ATTN: ORDOW-FM.

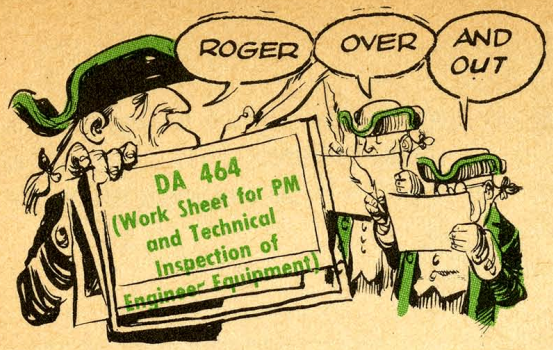


The green copy (4th) is signed as a receipt by the repairing agency for vehicle being turned in for repair. When work is done, the green copy is exchanged with repairing agency for the vehicle, the DA Form 478, the current work file, and the blue copy of DA Form 811. (The white and yellow copies are kept by the repairing agency). The blue copy should be destroyed after all pertinent entries have been made on the jacket file, DA Form 478. On Engineer equipment keep blue copy in jacket file for one year then destroy.

ENGINEER EQUIPMENT



New monthly operational records are made out before the first day of the operating month. All deferred maintenance, service data, and accumulated hours or mileage will be transferred to the new records. Monthly operational records will be kept for one year then destroyed.

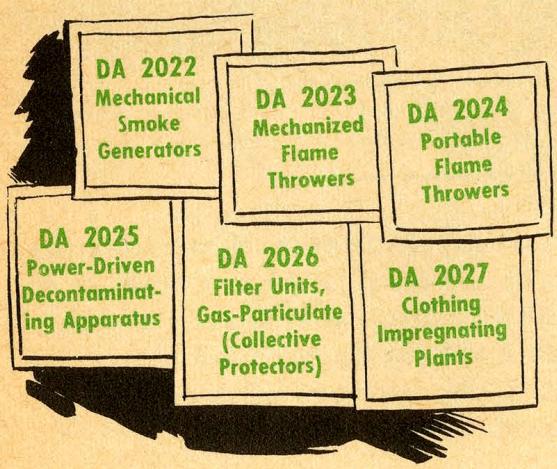


Destroy forms used for recording bi-weekly maintenance services after you've completed and filed next bi-monthly services maintenance work sheet.
Destroy forms used for recording bi-monthly maintenance services after you've completed the next bi-monthly inspection.
Destroy forms used for command and technical inspections upon completion of next inspection.

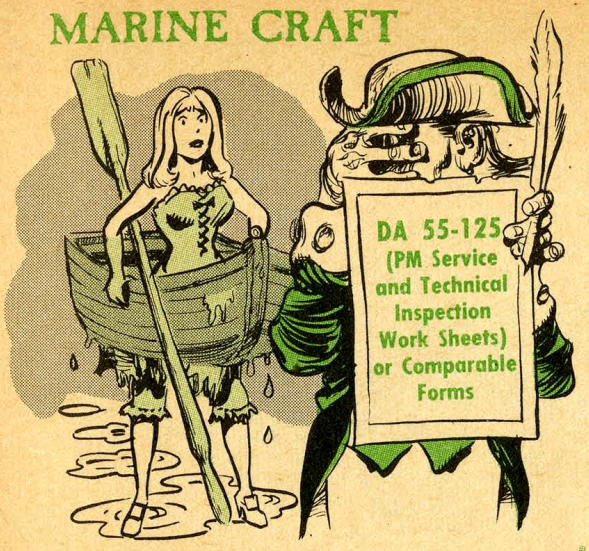
RECORD OF OPERATION CHEMICAL EQUIPMENT

WORK SHEETS FOR PREVENTIVE MAINTENANCE

Work Sheets listing preventive maintenance services to be done semi-annually can be destroyed after you've completed and filed next 6-month service records. Preventive maintenance work sheets which do not list services to be done semi-annually should be destroyed when they become 6 months old.



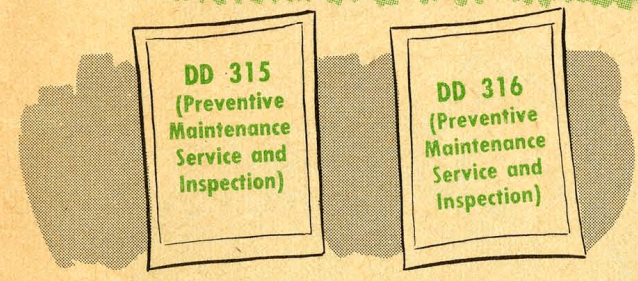
MARINE CRAFT



Destroy forms used for monthly (200-hour) PM inspections and services after you file the next semi-annual (1200-hour) maintenance work sheet. Forms used in connection with semi-annual (1200-hour) preventive maintenance inspections and services should be destroyed when you file the next semi-annual (1200-hour) maintenance work sheet.

Forms used in connection with technical inspections are destroyed when the next semi-annual (1200-hour) maintenance work sheet is filed. When a vessel passes out of Army control through sale, salvage, or destruction, all marine craft preventive maintenance service and inspection files should be destroyed 6 months later.

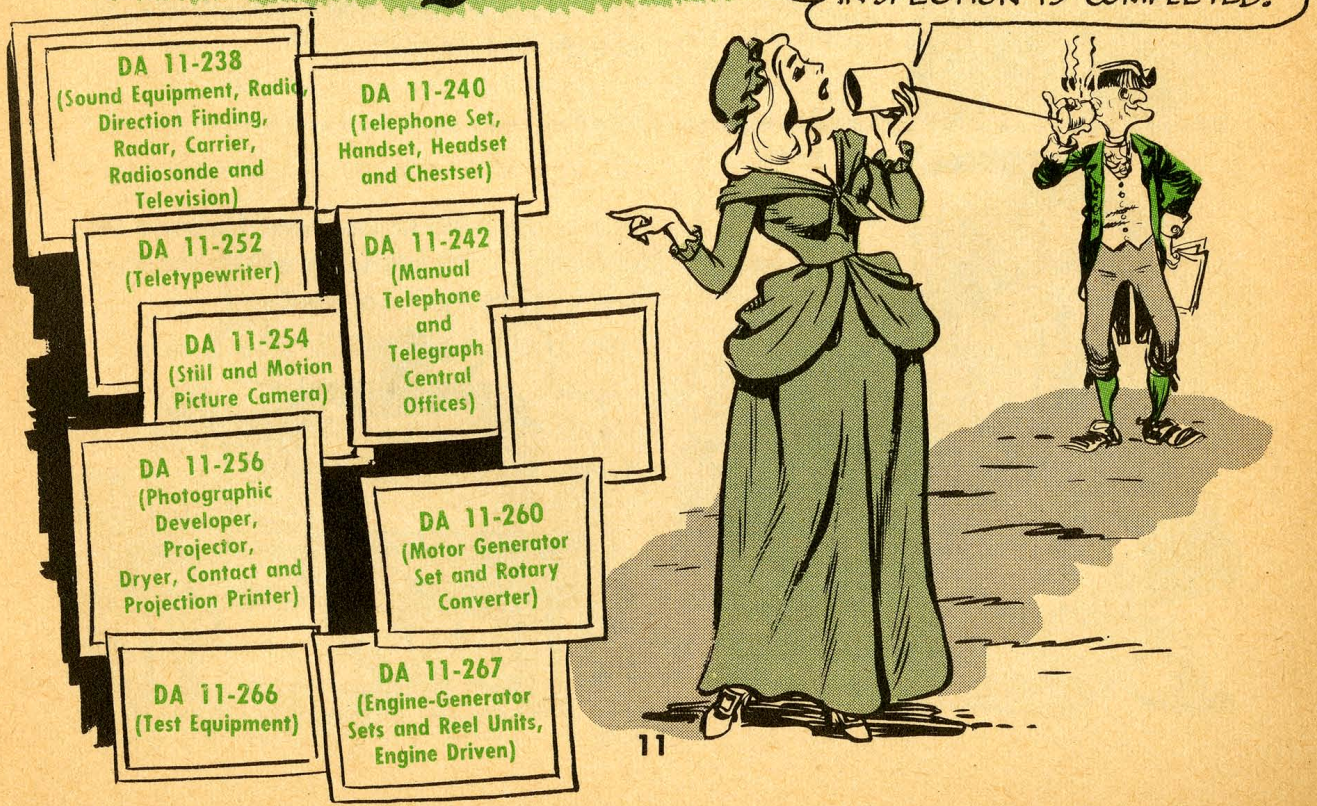
ADMINISTRATIVE VEHICLES



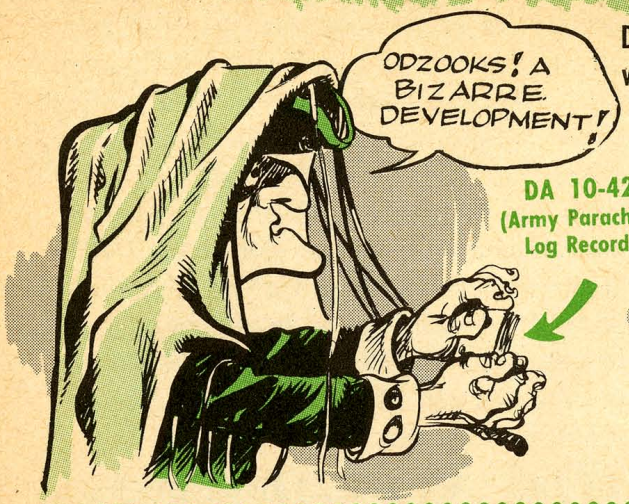
Kept in DA Form 478 envelope until the next semi-annual (6-month periods) or 12,000 mile service is done. When used as job order keep in jacket file for a year.

MAINTENANCE CHECK LIST

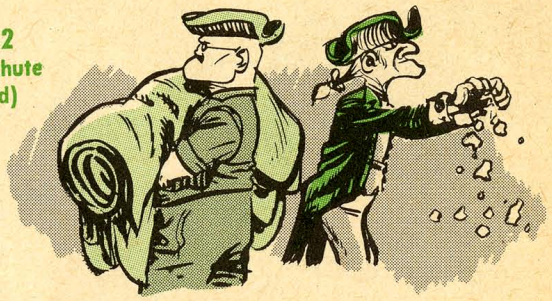
SIGNAL EQUIPMENT

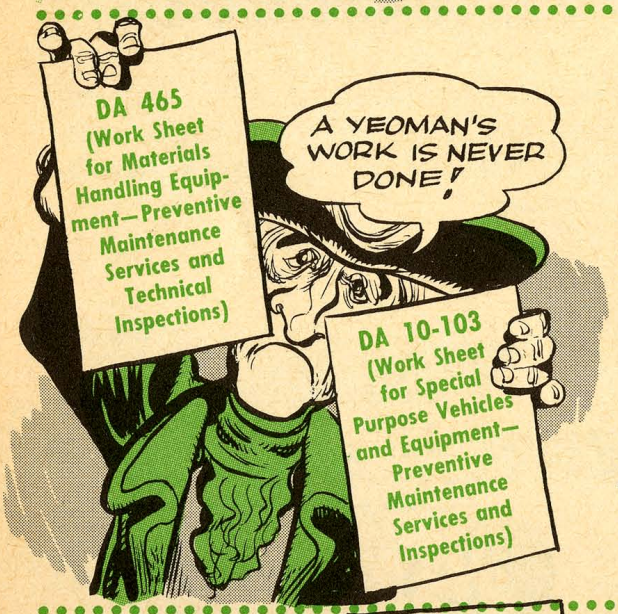


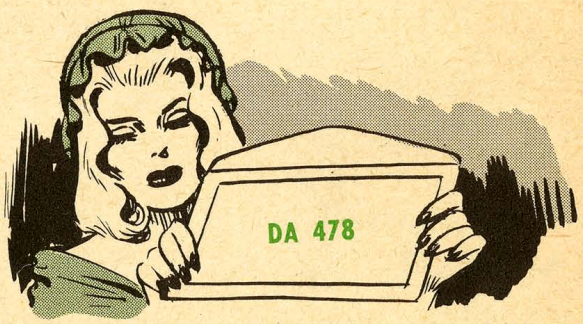
QM EQUIPMENT



Destroy on survey or salvage of the equipment to which it belongs.

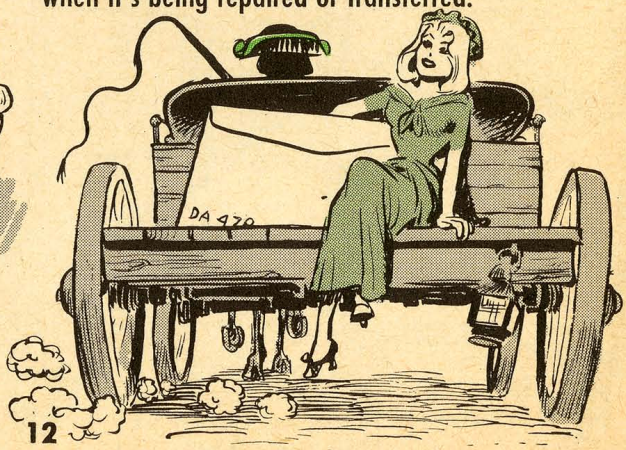






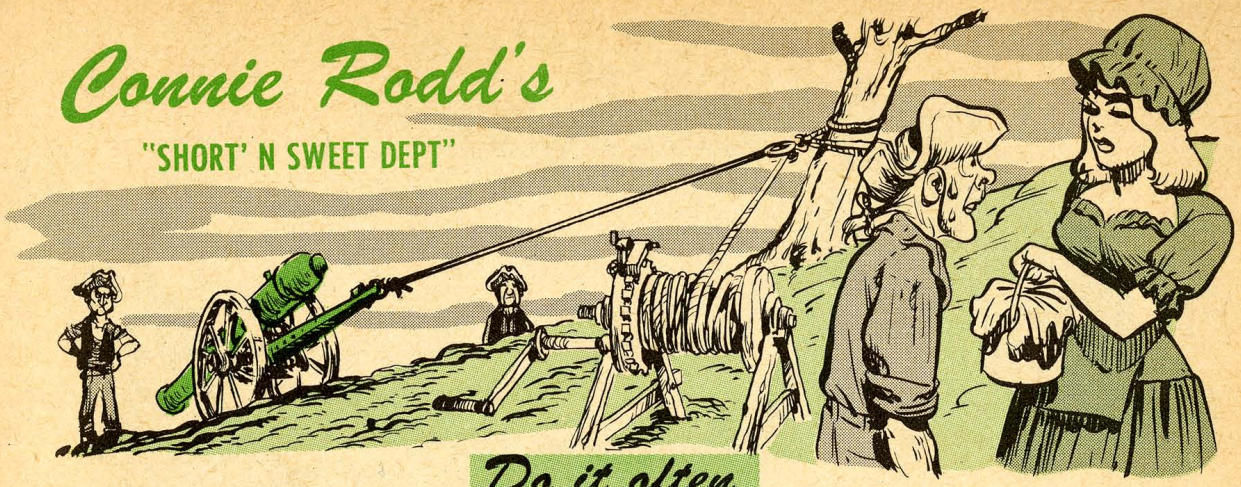
File one copy of the most recently completed inspection (100 and 500 hour) in the Organizational Equipment File (DA Form 478).

File one copy in the Organizational Equipment File (DA Form 478). This form will go with the equipment when it's being repaired or transferred.



Connie Rodd's

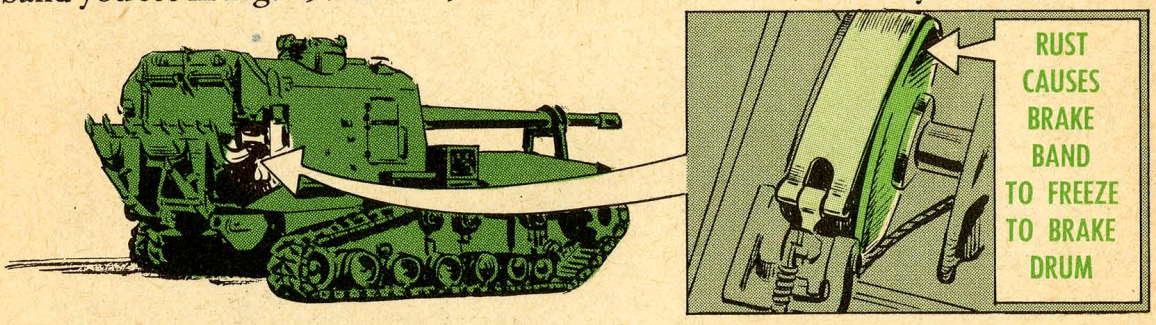
"SHORT' N SWEET DEPT"



Do it often

Fair warning to all operators of the M53 self-propelled gun and the M55 self-propelled howitzer . . . take a few seconds of your PM time every now and then and exercise the spade hoist.

The little animal that needs this bit of extra care is the wrap-around brake band you see in Fig. 297 of TM 9-7212 and TM 9-7220. Ol' Rusty and Mr. Corro-

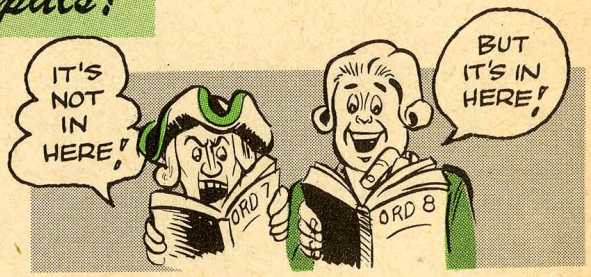


sion get settled down in the innards of the band and cause it to freeze to the drum.

Climatic conditions have a lot to do with this freezing. In damp areas exercise the hoist real, real often, and in other climates just do it often.

Seems normal operation of the hoist just isn't often enough to keep rust and corrosion from doing their dirty work.

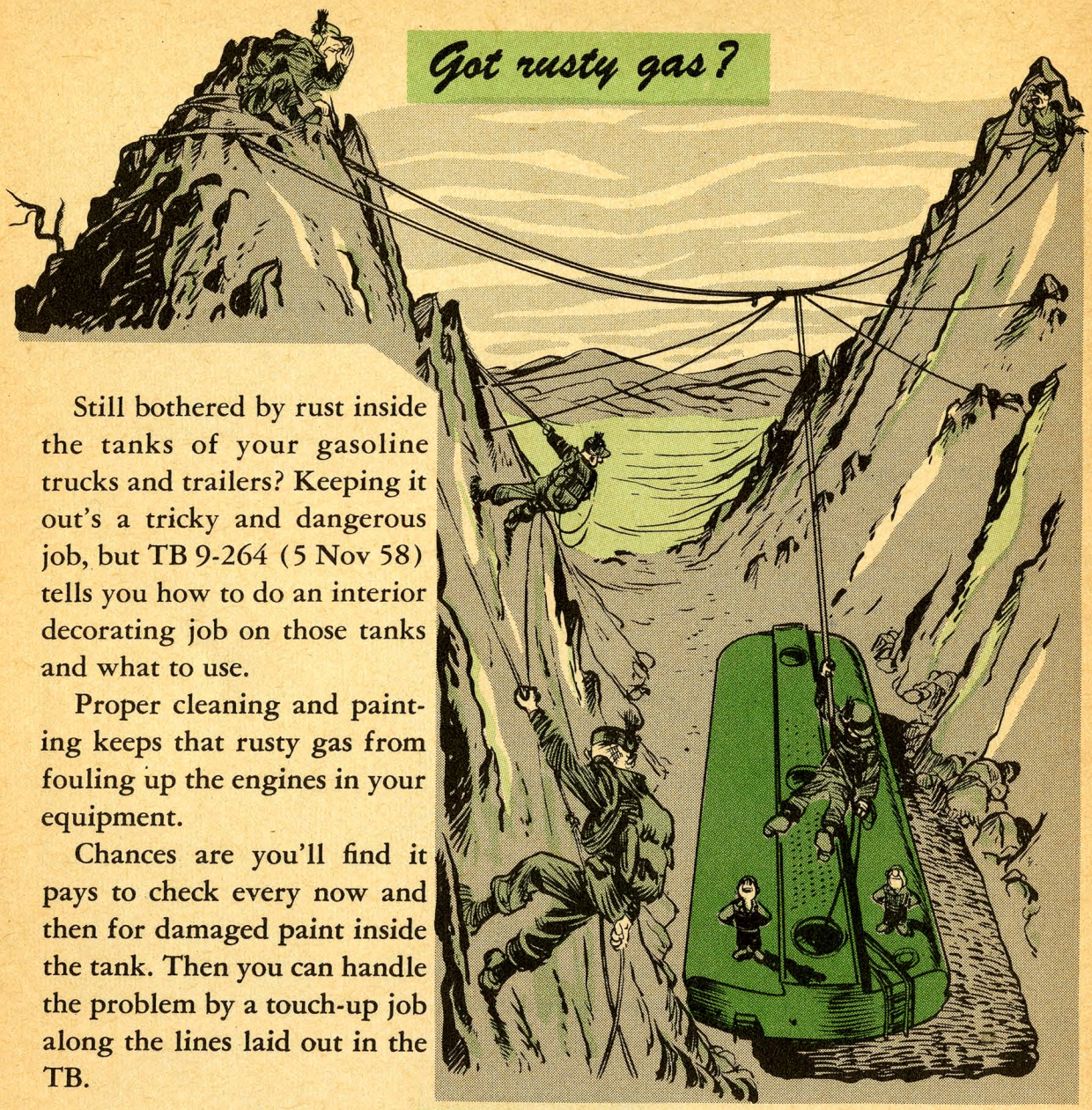
Pin pals?



Seems Ord 7 SNL G254 (Dec 56) shows FSN 5315-752-5789 as the attaching pin for the transmission shock mount on the M48 mediums and M67 flamethrower tanks.

That's **not** so—'cause this pin is only good for the M46 and M47 tanks. What you Ord 7 users really want is in Ord 8 SNL G254 page 159—it's FSN 5315-695-8998 and reads: Pin, cross drive drive mounting support, assy. The Pub's people are correcting this.

Got rusty gas?

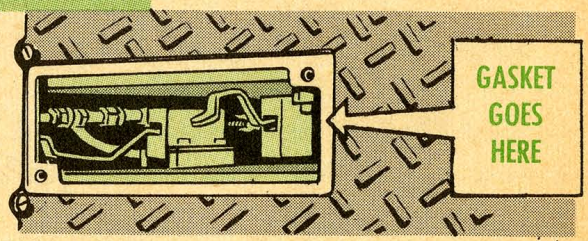


Still bothered by rust inside the tanks of your gasoline trucks and trailers? Keeping it out's a tricky and dangerous job, but TB 9-264 (5 Nov 58) tells you how to do an interior decorating job on those tanks and what to use.

Proper cleaning and painting keeps that rusty gas from fouling up the engines in your equipment.

Chances are you'll find it pays to check every now and then for damaged paint inside the tank. Then you can handle the problem by a touch-up job along the lines laid out in the TB.

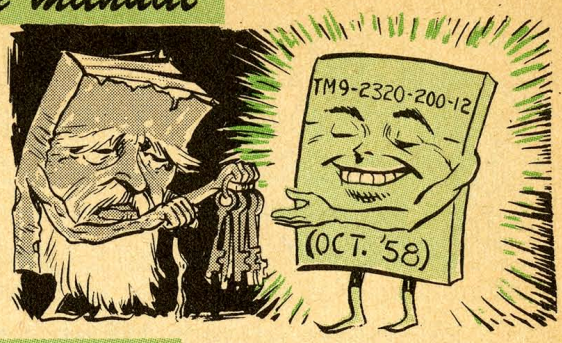
Tight cover



If you should have to get at the fuel tank shut-off valve on your M47 medium tank . . . look-out, brother, look-out. Make sure you put the gasket back on the valve cover assembly access hole and that the valve cover is real tight! Otherwise, you're in for a stinkin'—and maybe deadly—time 'cause exhaust fumes will leak into the crew compartment. Crewmen who are hep already know this . . . they read it in section XXI of TM 9-2350-200-12.

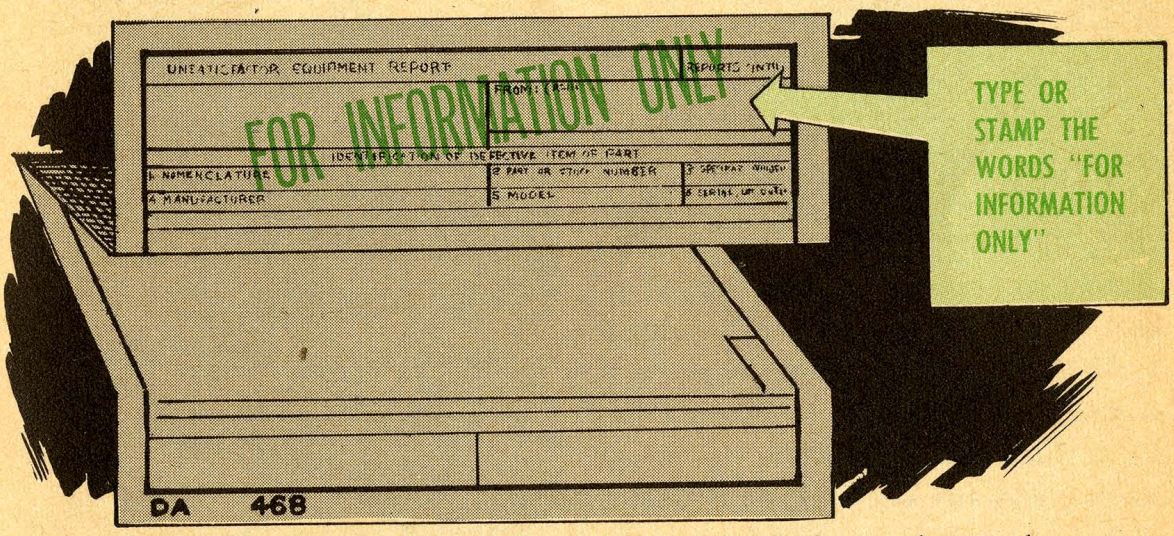
New tank manual

The new pub for the M47 medium tank, TM 9-2350-200-12 (Oct 58), is off the presses and in the field. This new manual replaces TM-9-718A. If you don't have yours ask your publications distribution people about it.



'For info only'

Bend an eye toward SB 9-98-1 (21 Oct 57) just as a reminder to report **all** defective parts on automotive equipment . . . even when they crop up during the manufacturer's warranty period.



Para 3 says to use a UER (DA Form 468) to let Ordnance know about every warranty deal that comes along. But type or stamp the words "For Information Only" on the form.

Send it direct to:

If it so happens you and the manufacturer can't get together on replacing a defective part, Ordnance wants to know about that, too.

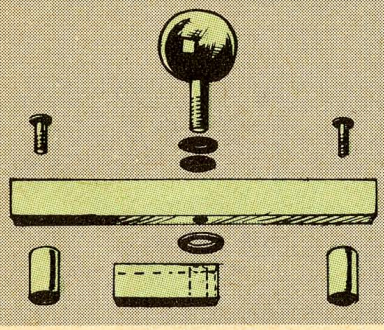
Chief of Ordnance
Department of the Army
ATTN: ORDFM-Auto
Washington 25, D.C.

Useless headrest

Just thought you M48A2 tankers would like to know. You don't need the headrest for the M104A1 periscope mount with the M28 periscope sight. The headrest, FSN 1240-346-8243, may as well go back to your support unit. Ask Ordnance about it.

Wanna special reminder to keep the power selector lever from slipping into the RAM groove on your M53 self-propelled gun or the M55 self-propelled howitzer?

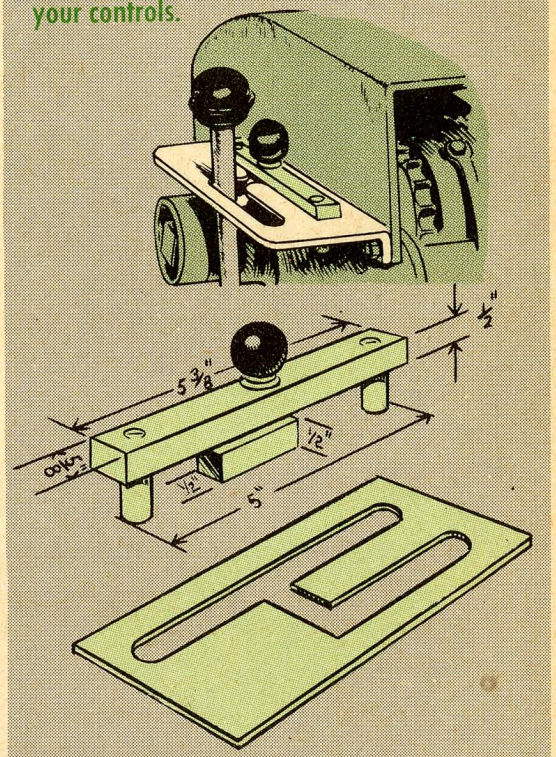
Then why not whip up this handy little gadget.

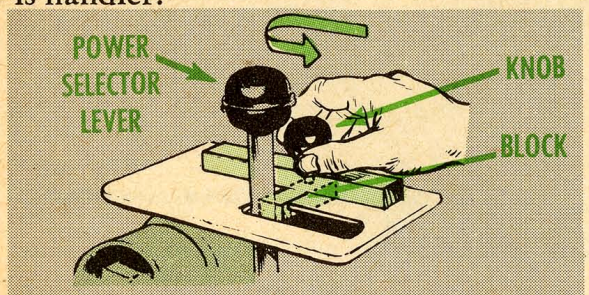


All that's needed to make this "stopper" are two lugs, ½-in diameter, ½-in to ¾-in long; a bar 5⅜-in long, ⅝-in wide and ½-in thick; a block ⅞-in long, ½-in thick and ½-in wide; two wood screws, and any knob 1½-in diameter with a ¼-in diameter ¾-in extension.

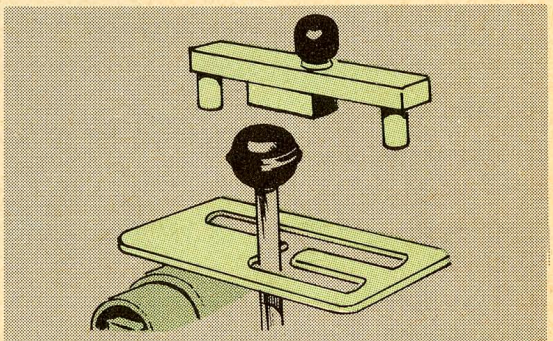
You can use a T-handle instead of the knob if you like. Or you can make this "fix" out of wood or metal, whichever is handier.

This gizmo can be inserted in the RAM slot on your controls.





To lock the retainer in place, just set it in the RAM groove and turn the knob or T-handle toward the SPADE HOIST slot.



To take the gadget out, just turn the knob back straight and lift out. Simple and safe.

Is it loaded?

A while back you were clued about a couple of different spark plug cables (leads)... one with rubber-type grommets (sleeves) and the other ceramic. And the troubles y'get with the rubber type ... and how to avoid 'em. Right?

Now comes a new type that makes the situation even more interesting. The new one's got rubber grommets, too, which you'll find on some new production vehicles.

Here's the score on it:

Trouble with the **old** rubber-grommet type was that the grommet tended to set after its first use—and lose its water-proof quality. Also, its conductor was too long, which caused it to kink and short against the cable shielding.

In the new type the rubber grommet is spring-loaded. Which means it'll seat right every time ... and keep its water-proofing.

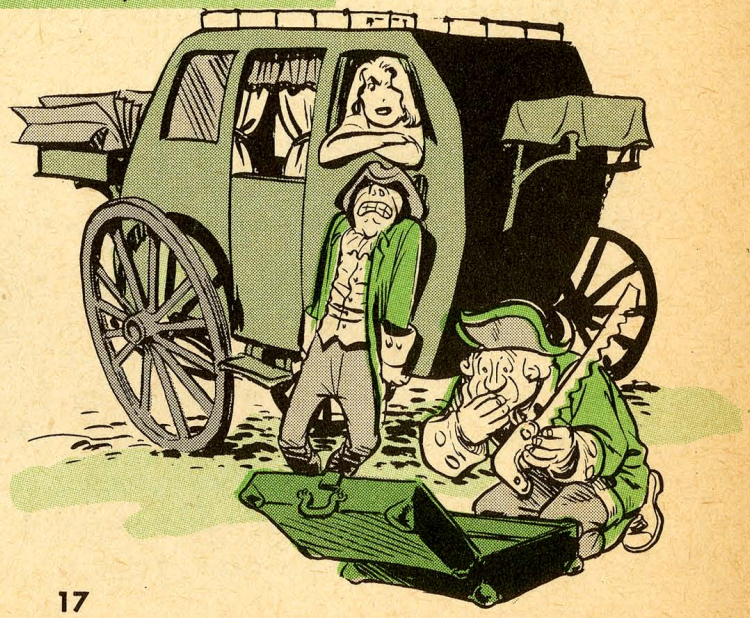
So-o-o—don't go tossing out a lead just because it's got a rubber grommet. Check and see if the grommet's spring-loaded. If so, use it. It's the best one for the job.

'Course that cable with the ceramic-type grommet is OK, too. It's just that the grommet is fragile and won't last too long. This type'll be used up and exhausted to the spring-loaded rubber job after a while.

This deal will apply across the board—to all your tactical vehicles with the 24-volt water-proof electrical system.

For the carpenters

Could be you've been having trouble trying to figure out just what tools belong in your Carpenter's tool kit. Your Engineer Supply Manual 5-4-5180-S04 (14 May 58) gives you a breakdown of Tool kit, carpenter's: Engineer Squad, FSN 5180-293-2875. And SM 5-4-5180-S05, (26 Sept 58) is for Tool kit, carpenter's: Engineer Platoon, FSN 5180-293-2873. Both of these pubs have pictures of the tools.



CONFUSIN'
FOR YOUR M8A1

If you're the caretaker for any of the eight tracked vehicles which have the M8A1 tank filter unit in 'em, you may have a coupla supply headaches if you have to replace damaged or worn-out parts used to install the filter unit.

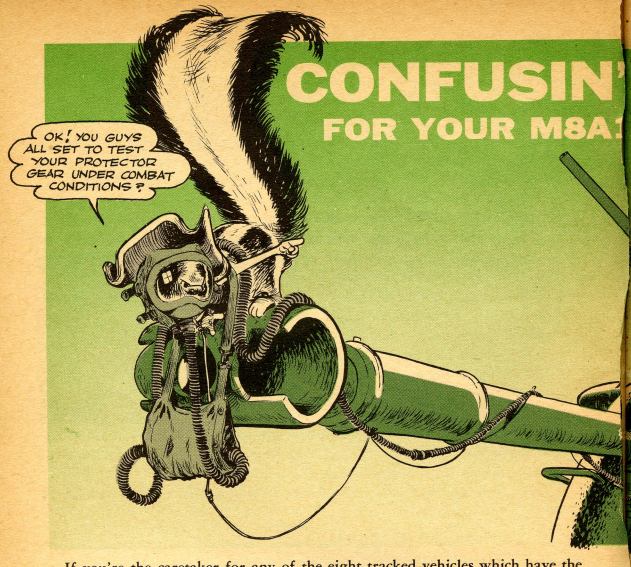
You see, the M20 installation kit was used to put the filter unit in your vehicle. The kit was designed to take care of all eight vehicles—a universal kit they call it—so every part needed for installing the filter unit in all vehicles was included in one kit.

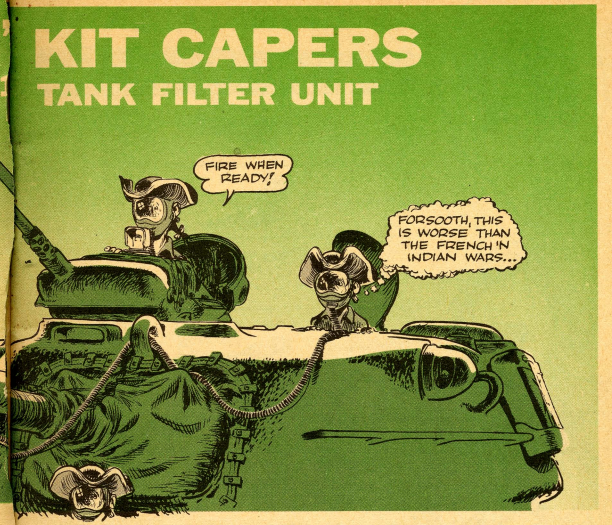
Some of the parts, naturally, can be used on all eight; others on only two or three, and still others are meant for use in just one vehicle. For example, of the seven or eight cable assemblies in the kit, you may need one or two in each vehicle, which adds up to a heap of cables included in one kit.

To further confuse the issue, the parts you now have in your vehicle don't have

CONFUSIN' KIT CAPERS

FOR YOUR M8A1 TANK FILTER UNIT





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To further confuse the issue, the parts you now have in your vehicle don't have any stock numbers marked on 'em, so unless you know what was there in the first place, you won't be able to requisition replacements until Change 1 to TM 3-4240-200-12P (repair parts list) is published.

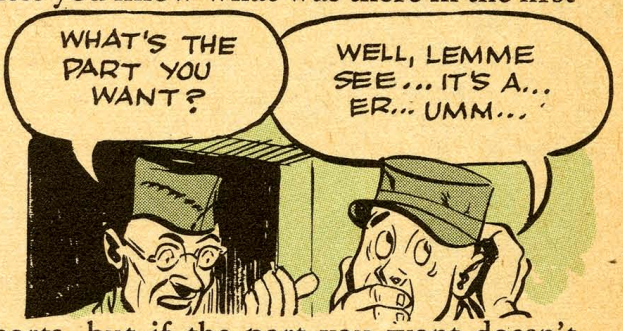
If you have to replace any parts, you'll need to requisition 'em through your supply channels. Natch, you'll use Federal Stock Numbers to order the parts, but if the part you want doesn't have an FSN yet, just explain this on your requisition and use the Ordnance Drawing Number and Chemical Drawing Number.

To help your Chemical supply people, look at the handy chart on the next page listing the FSN's, Ord Dwg No. and Cml Dwg No., complete with pictures of the parts. Remember though, only the parts in this chart are available for second echelon use—the rest of the kit is out of bounds as far as you're concerned.

KIT CAPERS

TANK FILTER UNIT

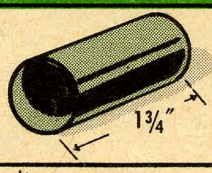
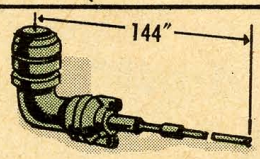
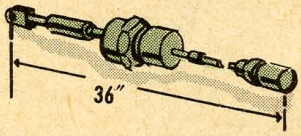
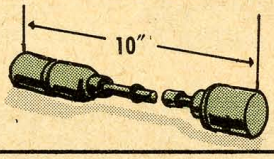
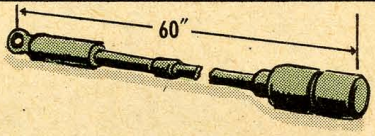
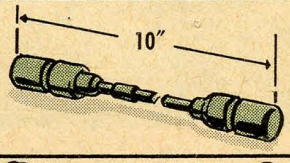
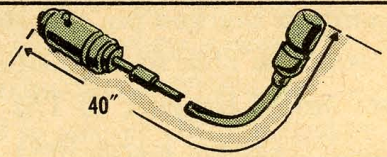
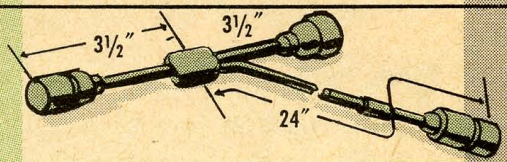
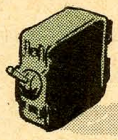
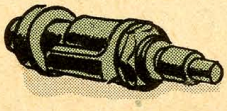
any stock numbers marked on 'em, so unless you know what was there in the first place, you won't be able to requisition replacements until Change 1 to TM 3-4240-200-12P (repair parts list) is published.



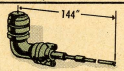
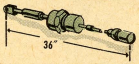
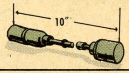
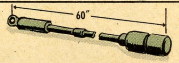
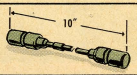
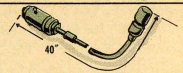
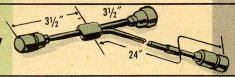
If you have to replace any parts, you'll need to requisition 'em through your supply channels. Natch, you'll use Federal Stock Numbers to order the parts, but if the part you want doesn't have an FSN yet, just explain this on your requisition and use the Ordnance Drawing Number and Chemical Drawing Number.

To help your Chemical supply people, look at the handy chart on the next page listing the FSN's, Ord Dwg No. and Cml Dwg No., complete with pictures of the parts. Remember though, only the parts in this chart are available for second echelon use—the rest of the kit is out of bounds as far as you're concerned.

M20 INSTALLATION

PART		FSN
Tube		4240-679-3495
Cable Assy		4240-632-3044
Cable Assy		4240-632-3045
Cable Assy		4240-632-3046
Cable Assy		4240-632-9089
Cable Assy		4240-632-3048
Cable Assy		4240-632-3047
Harness Assy		4240-632-3043
Switch Assy		5930-296-6318
Lamp Assy		6210-656-3028

M20 INSTALLATION KIT

PART		FSN
Tube		4240-679-3495
Cable Assy		4240-632-3044
Cable Assy		4240-632-3045
Cable Assy		4240-632-3046
Cable Assy		4240-632-9089
Cable Assy		4240-632-3048
Cable Assy		4240-632-3047
Harness Assy		4240-632-3043
Switch Assy		5930-296-6318
Lamp Assy		6210-656-3028

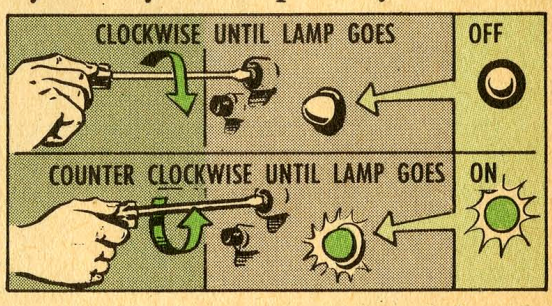
ORD DWG NO.	CML DWG NO.	NEEDED PER VEHICLE M48	M47	M59	M75	M74	M51	M41	M46
8743319	A5-19-1071	1	1	1	1	1		2	1
8743315	B5-19-1057	2	2	1	1	2	2	2	2
8743318	C5-19-1065	1						1	1
8743314	B5-19-1068	1	1	1	1		1	1	1
8743313	B5-19-1067	2	2	1	1	2	2	2	2
8743316	B5-19-1069	2	2	2	1	2	2	2	2
8743320	B5-19-1066					2			
8743317	C5-19-1064		1				1		
8376806	B5-19-1086	2	2	1	1	2	2	2	2
8376499	C5-19-1085	2	2	1	1	2	2	2	2

KIT

ORD DWG NO.	CML DWG NO.	NEEDED PER VEHICLE							
		M48	M47	M59	M75	M74	M51	M41	M46
8743319	A5-19-1071	1	1	1	1	1		2	1
8743315	B5-19-1057	2	2	1	1	2	2	2	2
8743318	C5-19-1065	1						1	1
8743314	B5-19-1068	1	1	1	1		1	1	1
8743313	B5-19-1067	2	2	1	1	2	2	2	2
8743316	B5-19-1069	2	2	2	1	2	2	2	2
8743320	B5-19-1066					2			
8743317	C5-19-1064		1				1		
8376806	B5-19-1086	2	2	1	1	2	2	2	2
8376499	C5-19-1085	2	2	1	1	2	2	2	2

HOW'S THE EQUILIBRIUM?

On your Nike-Ajax site... are the relay amplifiers in your computer balanced? When you ran your computer dynamic course 1 this week, did your Fin Order Meter flip into a 7G dive or sharp turn?



If you made a sharp turn instead of a 7G dive, your equilibrium was OK. And . . . like it says in para 32 of FM 44-80A, you get the right balance by adjusting the relay amplifier ADJ control until the indicator lamp goes off. Then readjust until the lamp lights. Stop adjusting the split second the light comes on. That means you've got your equi-

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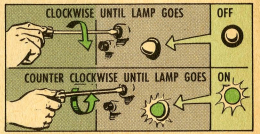
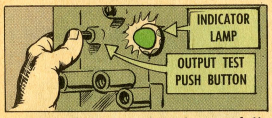


You'll also read that you get −5G on both meters during the course'. Tain't likely, tho, if your RC relay amplifier is adjusted right.

So look for a turn, +5G pitch and −5G yaw. If you don't get it, there's a good chance you're off your equilibrium. What you do then is recheck to make sure the relay is being de-energized by pressing the output test pushbutton with the indicator lamp at the point where it's just on.



Remember . . . you won't see a full turn throughout the course. Old OL will take over when the missile is higher'n a kite in a March wind and drop the turn order to something like +2.5G pitch and −2.5G yaw—not necessarily both minus like you've read.

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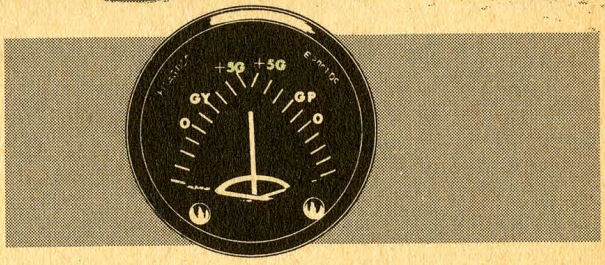

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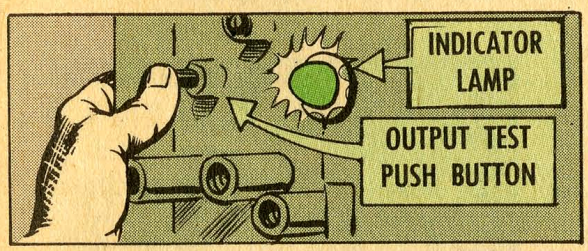

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SAVE YOUR BOX

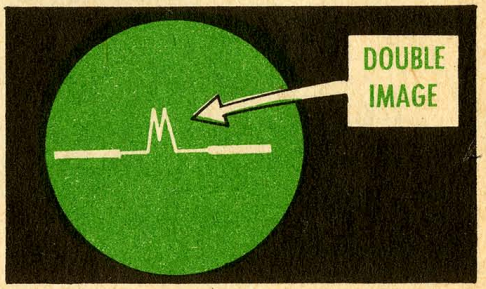
hose wooden shipping containers that come to your Nike site loaded with such things as warheads, Jatos and fins are great for building shelves, doghouses and what have you. No doubt about it.

Trouble is . . . those boxes are supposed to be used over and over again. So when you send something—like a warhead—back to your support unit, put it in the box it came in.

And while you're holding onto boxes for future use, keep 'em out of the weather.

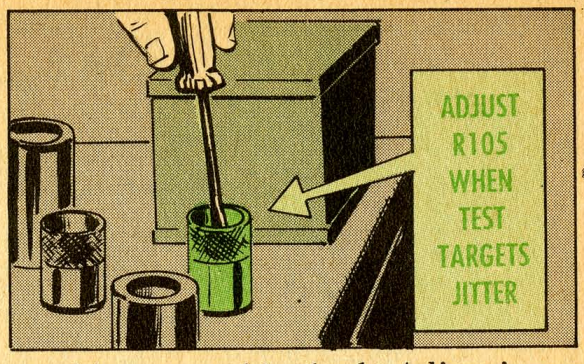
GOT THE JITTERS?

ee a double image this morning when you looked at your range mark to check out your Nike-Ajax target tracking radar? Could be a bad night, but before you reach for the APC's try the FIL BAL adjustment on the range unit assembly.

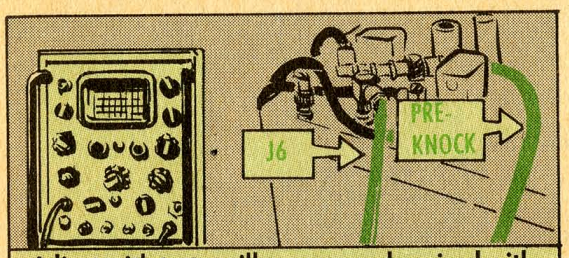


Sure—the FIL BAL control is on the top cover of the range unit assembly, but

you are adjusting R105 for the filaments of V3, V4 and V5 of the timing wave amplifier-oscillator. This adjustment doesn't show up in FM 44-80A or your TM's, so don't confuse it with paragraph 222c in FM 44-80A. That talks about the range sweep expanded area jitter adjustment.

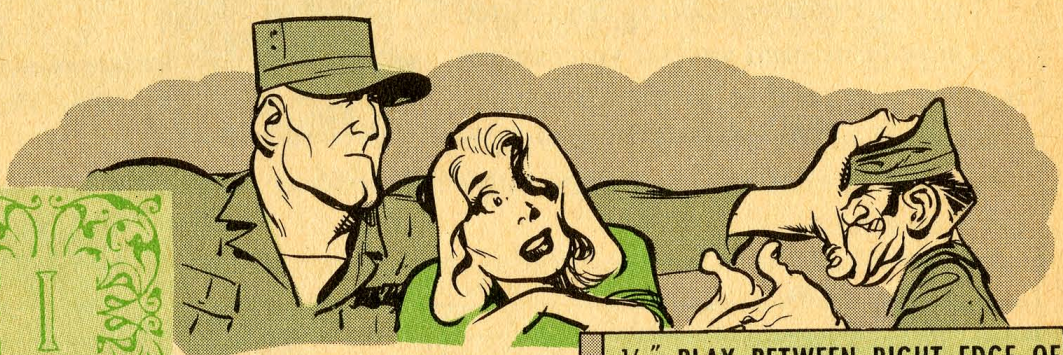


Don't try to adjust FIL BAL on a daily, weekly or monthly check. Adjust it any time you find test targets jitter in the notch. Best way to adjust is to use a test oscilloscope, synchronized with pre-knock, and monitor at J6 on the range unit assembly. If you've still got the jitters in your range mark, then better look for a disconnected shielding somewhere in your receiver cabling.

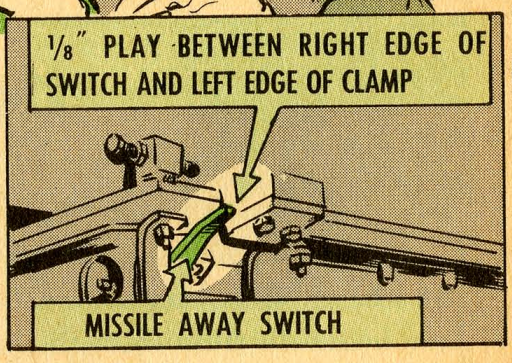


Adjust with test oscilloscope synchronized with pre-knock, and monitor at J6 on the range unit assembly

NO PLAYING AROUND



It's a smart Nike-Ajax missileman—the one who doesn't give or take any part of an inch when it comes to adjusting the missile away switch on his launching and handling rails.



The switch gets adjusted for 1/8-in play. The old spec of 1/32- to 3/16-in end play is no more.

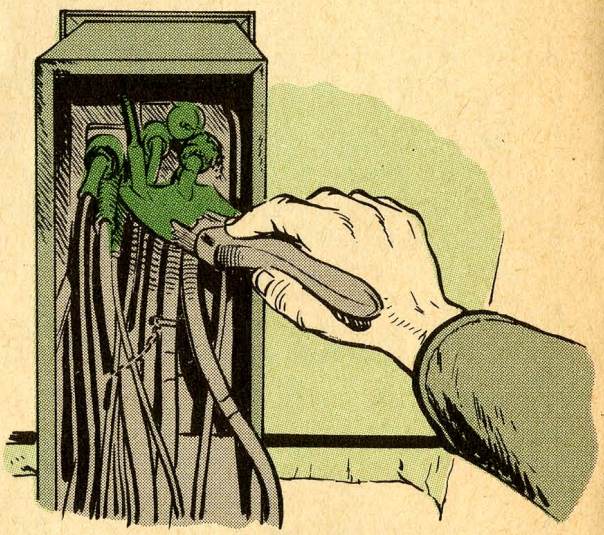
If you go for more than 1/8-in end play, the switch might stay open, which means you won't have a complete missile ready-to-fire circuitry. And if you have less play, it could turn out that after you raise the missile into firing position, the round might settle enough to damage the switch.

CORRECT CABLE COATING

Dear Half-Mast,

Is there anything new on some kind of protective coating for the interconnecting cables at our Nike site? We just don't go for that strippable plastic stuff.

CWO G. H.



Dear CWO G. H.,

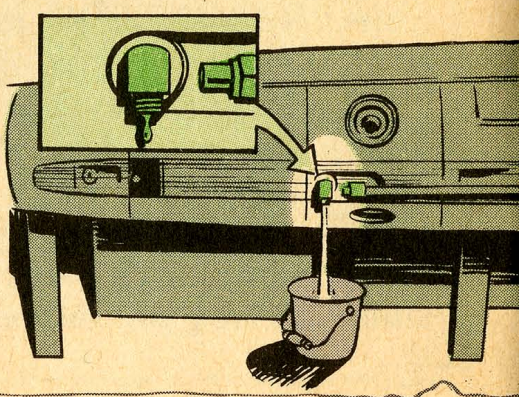
It's been out for a spell now, but I guess you haven't run across it. What you want is Preservative Coating, Rubber. It's used on real or synthetic rubber or rubber-coated Ordnance material. That means fire control cables, tires, hoses and so on.

The preservative coating isn't listed in a supply manual yet but you can get it since you need it to maintain your equipment. FSN 8030-543-7634 gets you a one-gallon can and FSN 8030-543-7636 is worth five gallons. It's an Ordnance item.

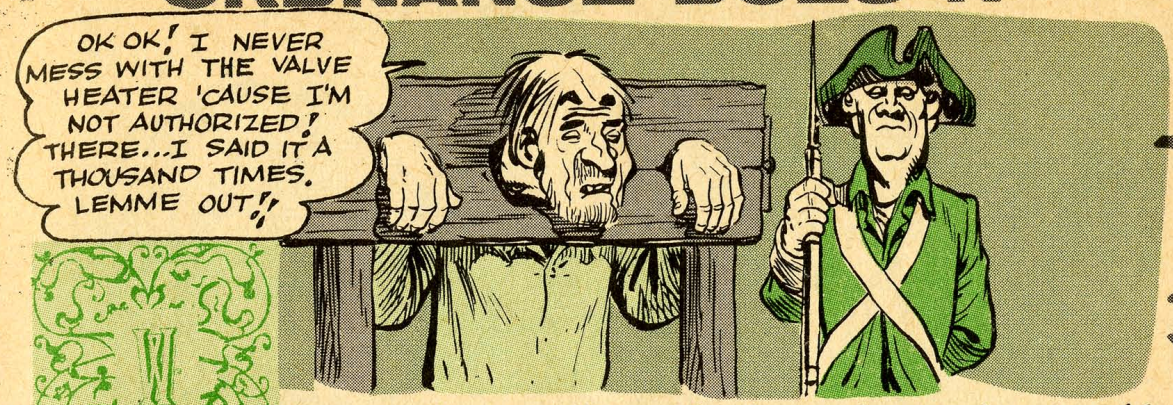
Half-Mast

DRAIN IT FAST

Don't forget—when you assemble and activate a new or rebuilt Nike-Ajax missile, be sure to drain the hydraulic fluid from the accumulator—as outlined in TB Ord 680—to make sure you've got no air on the oil side of the piston. Then refill with hydraulic fluid, either MIL-O-5606 or MPD 2067, depending on the weather.



ORDNANCE DOES IT



When you have trouble with air regulator valve assembly heaters at your Nike-Ajax site, don't tackle the job yourself. 'Stead, send for Ordnance support personnel—they've got the tools and know-how to do the job.

END FUSE FUSS

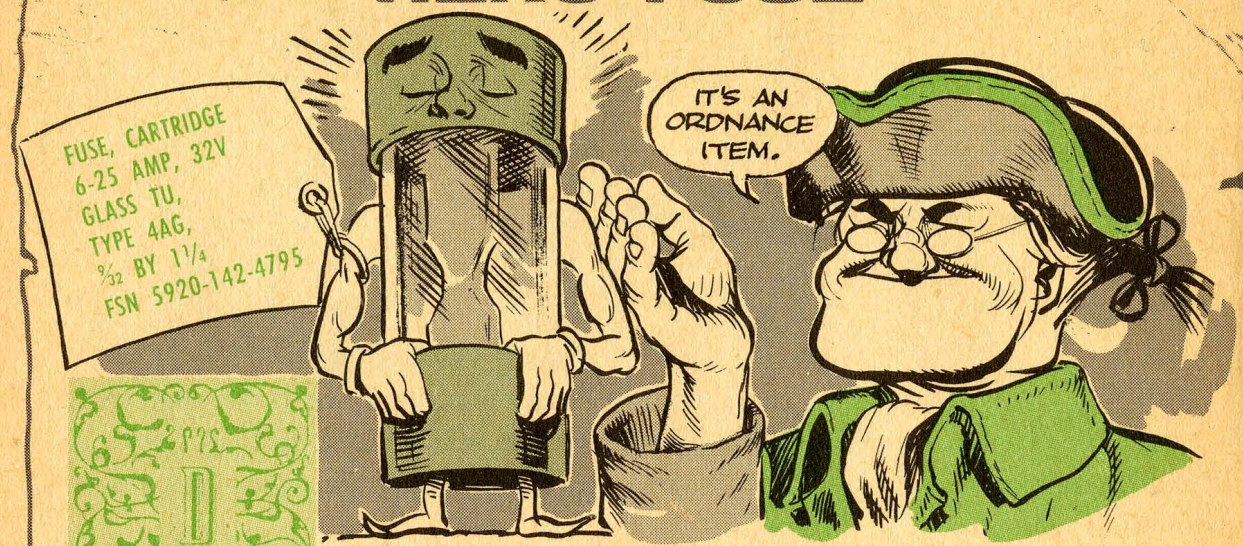
So you Nike-Ajax missilemen have been knocking your heads against your vans trying to figure out how to latch on to some 20-amp, 125-volt fuses.

You can save wear and tear on your noggin by asking Ordnance for the fuses

under FSN 5920-142-7398—just like you've been doing. You're right—you might get 20-amp, 250-volt fuses instead. But that's OK. The rated voltage can be higher than called for without hurting anything.

Once things line up in supply, you'll be able to get a 20-amp, 125-volt fuse from Ordnance under FSN 5920-280-4429.

HERC FUSE



Dear Half-Mast,

Can you tell me what Nike-Hercules supply manual lists the 6.25AS fuse that fuses the motor tach exciter in the RC van power supply cabinet?

J. H.

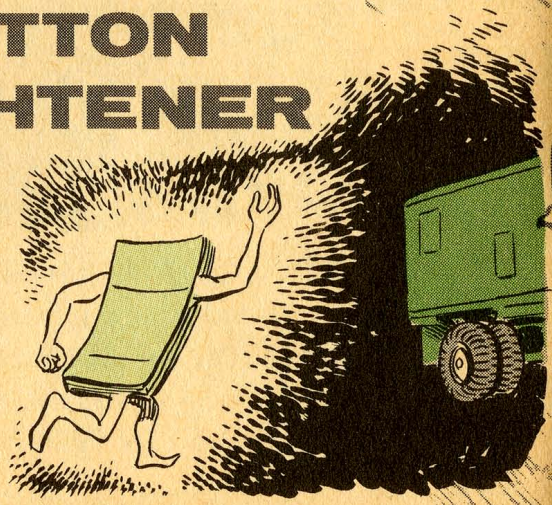
Dear J. H.,

There's been some back-and-forth talk on just what fuse to use, but the Ordnance people are standing pat on their choice. The fuse is listed in Nike-Hercules TM 9-1430-250-10P/5, Appendix III, dated 29 October 1958. It goes by this handle: FUSE, Cartridge: 6.25 amp, 32v, glass tu, type 4AG, 9/32 by 1¼, FSN 5920-142-4795. The fuse is an Ordnance item.

Half-Mast

BUTTON BRIGHTENER

Push buttons on your missile BC and RC vans gettin' hard to find in the dark? You'll find poop on how Ordnance can make 'em glow again in TB 9-1400-602-35 (3 Nov 58). The TB includes the brightening compound, cleaner and brushes they'll need for the job.

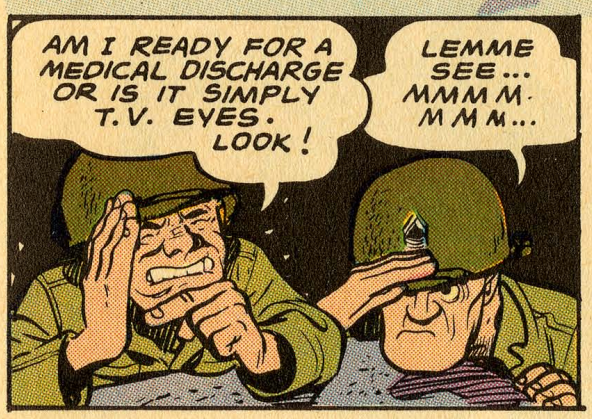


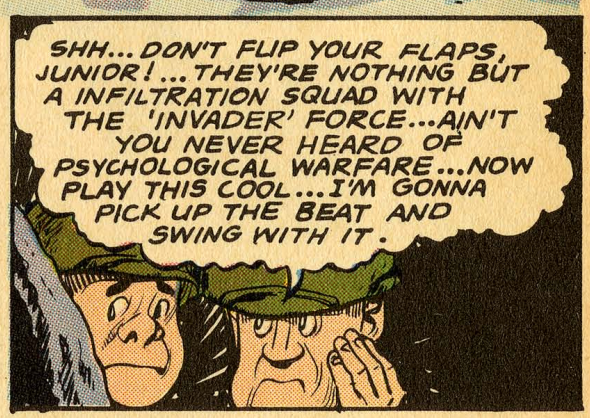
JOE'S DOPE

NEED A PUB,, BUB??

On the night of June 10, 1777 a small body of Continentals were detached from George Washington's Retreating Army.

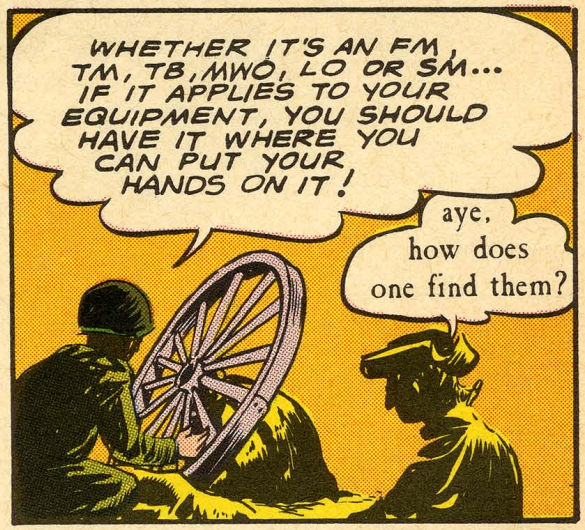
Their mission was simply to effect whatever delay was possible by harrassing the enemy's flank . . . they were never seen or heard from again!!
Not, that is, until two weeks ago during exercise "Slambang" . . .

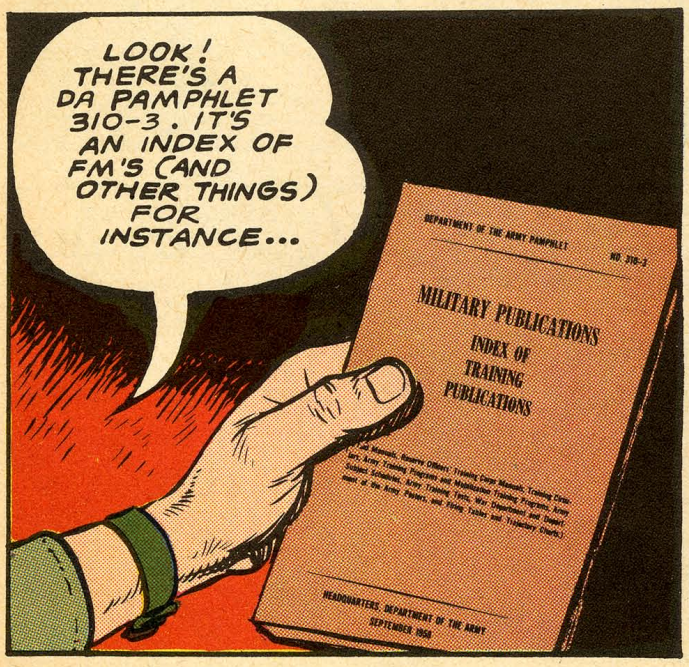




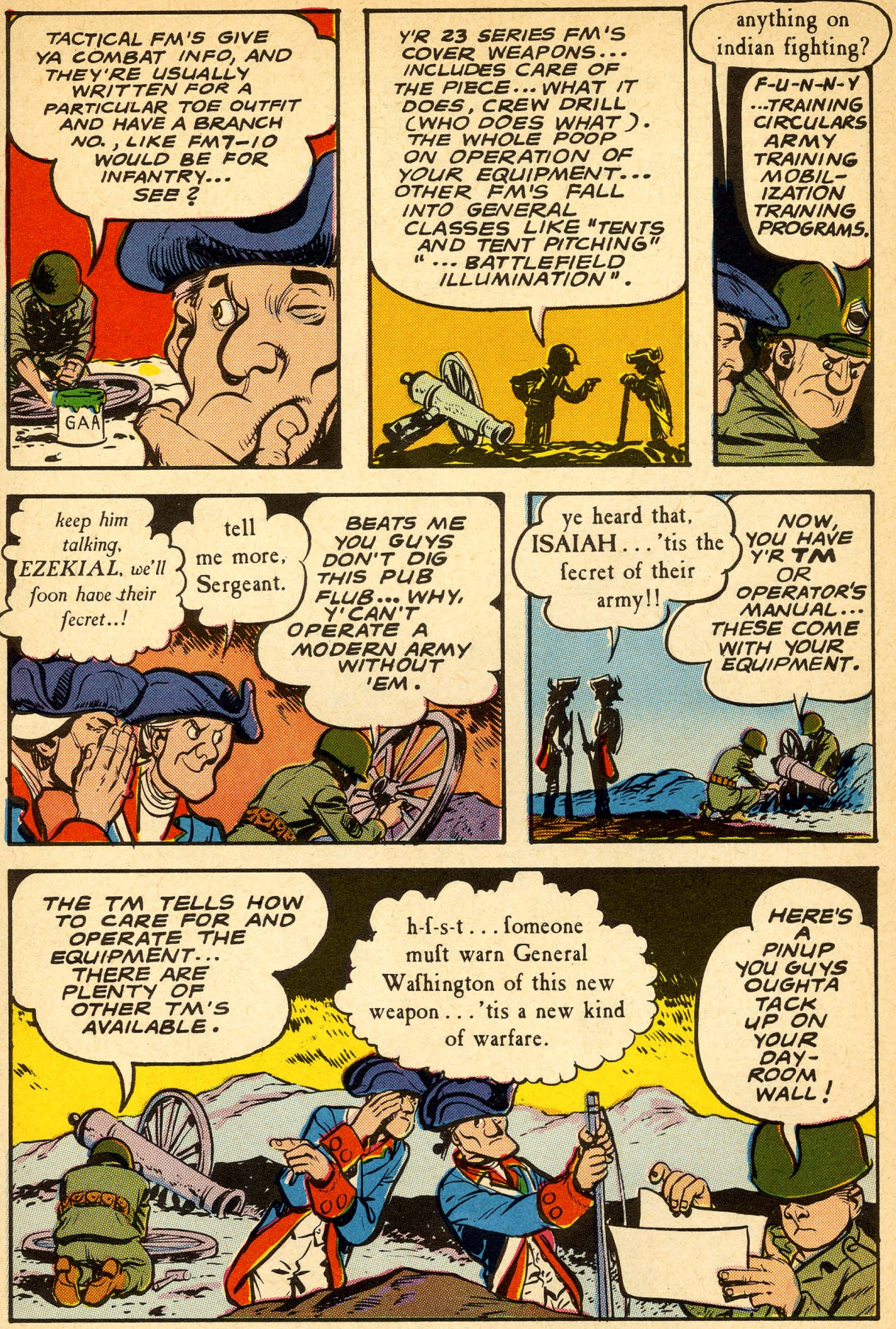
DIG THIS CRAZY DOORMAN!
DOOREMAN?? egad... how did ye know my name, zounds.. spies are everywhere abroad.
HMM... YOU GUYS'R GONNA NEED HELP MOVIN' THIS PIECE... GOT PUBS?...WE'LL SEE IF WE CAN GETCHA ROLLIN'!
PUBS? nay, alas! My thirst is great.
DOWN with KING GEORGE.
YEAH, IT'S A PRETTY CRUMMY JOINT... THE SERVICE IS TERRIBLE.

DON'T SNEER AT PUBLICATIONS... THEY MAY NOT SOLVE ALL YOUR PROBLEMS BUT THEY SURE HELP YOU KEEP YOUR EQUIPMENT READY FOR ACTION!


WHETHER IT'S AN FM, TM, TB, MWO, LO OR SM... IF IT APPLIES TO YOUR EQUIPMENT, YOU SHOULD HAVE IT WHERE YOU CAN PUT YOUR HANDS ON IT!
aye, how does one find them?


LOOK! THERE'S A DA PAMPHLET 310-3. IT'S AN INDEX OF FM'S (AND OTHER THINGS) FOR INSTANCE...
DEPARTMENT OF THE ARMY PAMPHLET
NO. 310-3
MILITARY PUBLICATIONS
INDEX OF TRAINING PUBLICATIONS
HEADQUARTERS, DEPARTMENT OF THE ARMY
SEPTEMBER 1950

FIELD MANUALS FALL INTO THREE GROUPS... TACTICS, TECHNIQUES AND DRILL.

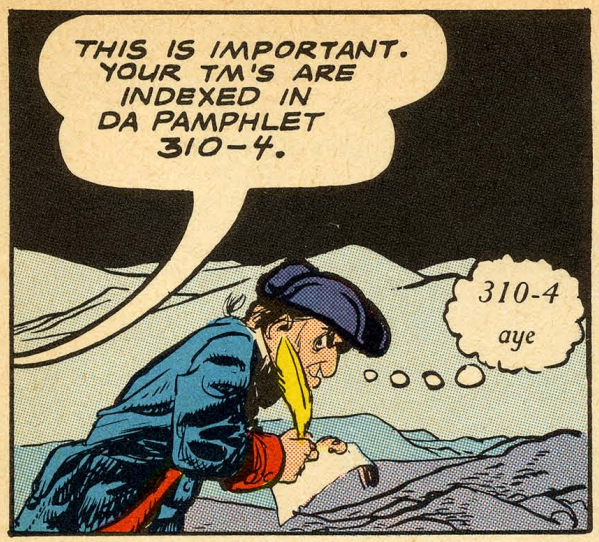

TACTICAL FM'S GIVE YA COMBAT INFO, AND THEY'RE USUALLY WRITTEN FOR A PARTICULAR TOE OUTFIT AND HAVE A BRANCH NO., LIKE FM7-10 WOULD BE FOR INFANTRY... SEE?
GAA
Y'R 23 SERIES FM'S COVER WEAPONS... INCLUDES CARE OF THE PIECE... WHAT IT DOES, CREW DRILL (WHO DOES WHAT). THE WHOLE POOP ON OPERATION OF YOUR EQUIPMENT... OTHER FM'S FALL INTO GENERAL CLASSES LIKE "TENTS AND TENT PITCHING" "... BATTLEFIELD ILLUMINATION".
anything on indian fighting?
F-U-N-N-Y ...TRAINING CIRCULARS ARMY TRAINING MOBILIZATION TRAINING PROGRAMS.
keep him talking, EZEKIAL, we'll soon have their secret..!
tell me more, Sergeant.
BEATS ME YOU GUYS DON'T DIG THIS PUB FLUB... WHY, Y'CAN'T OPERATE A MODERN ARMY WITHOUT 'EM.
ye heard that, ISAIAH... 'tis the secret of their army!!
NOW, YOU HAVE Y'R TM OR OPERATOR'S MANUAL... THESE COME WITH YOUR EQUIPMENT.
THE TM TELLS HOW TO CARE FOR AND OPERATE THE EQUIPMENT... THERE ARE PLENTY OF OTHER TM'S AVAILABLE.
h-f-s-t... someone must warn General Washington of this new weapon... 'tis a new kind of warfare.
HERE'S A PINUP YOU GUYS OUGHTA TACK UP ON YOUR DAY-ROOM WALL!

JOE'S Dope Sheet
TM9-1611
WE HAVE THE WORLD'S BEST

JOE'S Dope Sheet
A gun or a Jeep can be quite temperamental—
Publications are a guy's best friend!
When you need some tricks that aren't experimental
On your 'dozer woe—
To help you know your radio—
Where missiles fly,
Their use is high—
And they're nice when your 'copters descend,
On highways and byways, in airways and always,
Publications are a guy's best friend!
TM9-
Army
WE HAVE THE WORLD'S BEST EQUIPMENT ... Take care of it

A gun or a Jeep can be quite temperamental—
Publications are a guy's best friend!
When you need some tricks that aren't experimental
On your 'dozer woe—
To help you know your radio—
Where missiles fly,
Their use is high—
And they're nice when your 'copters descend,
On highways and byways, in airways and always,
Publications are a guy's best friend!

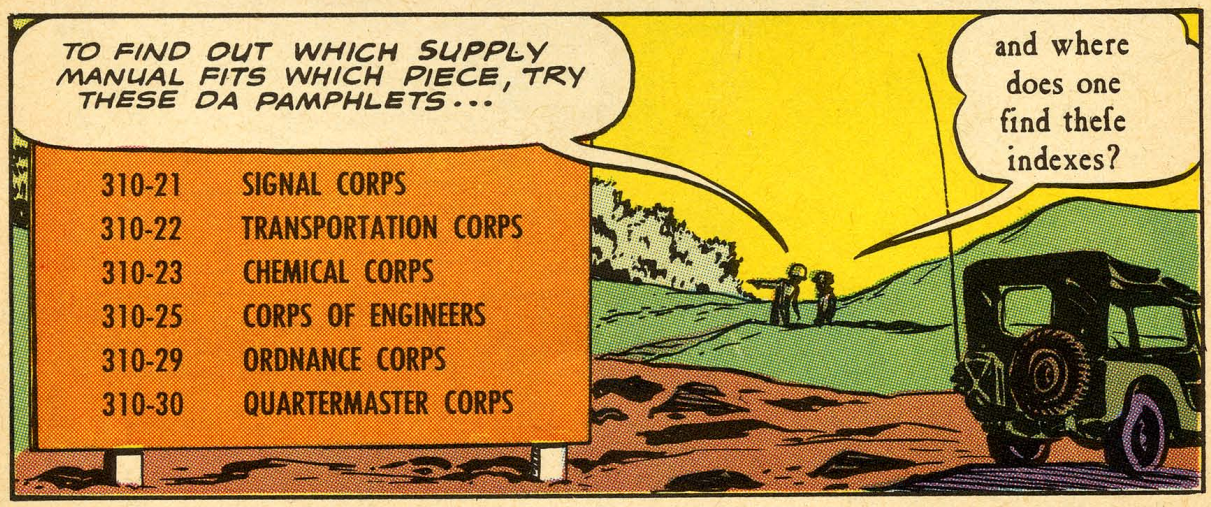
QUIPMENT ... *Take care of it*


THIS IS IMPORTANT. YOUR TM'S ARE INDEXED IN DA PAMPHLET 310-4.
310-4 aye

IT ALSO LISTS YOUR TB'S, SUPPLY BULLETINS, LUBE ORDERS AND MWO'S.
T.B.'s?? what are they?

TECHNICAL BULLETINS... GIVE YOU UP-TO-DATE INFO ABOUT YOUR WEAPONS AND EQUIPMENT. THEY COME OUT BETWEEN PRINTING OF YOUR TM'S... THE DOPE THEY GIVE USUALLY APPEARS LATER WHEN THE TM IS REVISED!

DA PAMPHLET 310-5 GIVES YOU AN INDEX OF GRAPHIC TRAINING AIDS! AND 310-7 GIVES YOU AN INDEX OF TOE'S, TO'S, TA'S... YOU KNOW, LIKE TABLES OF DISTRIBUTION AND TABLES OF ALLOWANCES.


TO FIND OUT WHICH SUPPLY MANUAL FITS WHICH PIECE, TRY THESE DA PAMPHLETS...
310-21 SIGNAL CORPS
310-22 TRANSPORTATION CORPS
310-23 CHEMICAL CORPS
310-25 CORPS OF ENGINEERS
310-29 ORDNANCE CORPS
310-30 QUARTERMASTER CORPS
and where does one find these indexes?

YOUR LIBRARY, BUB, AND WHILE YOU'RE THERE, LOOK UP ANY PUB YOU NEED.
how do I know what I need?
YOUR TOE GIVES YOU A BREAKDOWN ON TYPE, NUMBER OF PIECES, ETC ...OF THE EQUIPMENT YOU CAN HAVE... ONCE YOU KNOW THIS, YOU CAN FIGURE WHICH PUBLICATIONS YOU'LL NEED, TOO!
IN CASE YOU DON'T HAVE THE PUBS YOU NEED... YOU CAN ORDER 'EM BY QUOTING THE TOE AS YOUR AUTHORITY... AND USE DA FORM 17.
THE BACK OF THE FORM TELLS YOU HOW TO FILL IT OUT.
diabolically clever, the way this is all worked out...
how does one fecure thefe things ??
NOW, SAY YOU WANT A COMMERCIAL PUB ON AN ORDNANCE COMMERCIAL VEHICLE. JUST LIST Y'R NEEDS ON DA FORM 17 AND SEND IT TO THE C.O. RARITAN ARSENAL, METUCHEN, N.J. ATTN. ORDJR-P.
when he fixes the cannon we'll fhoot 'em down and efcape with this fecret to General Wafhington.
THERE, BOY, SHE'S FIXED!

The story you have just read was told to us in absolute confidence by the Mess Sergeant of the 246th and he NEVER LIES (except about his Monday hash . . . which he swears is great but which everybody on this post knows is lousy) . . . at any rate since the boys woulda got chewed for seeing ghosts, there will be no official report.

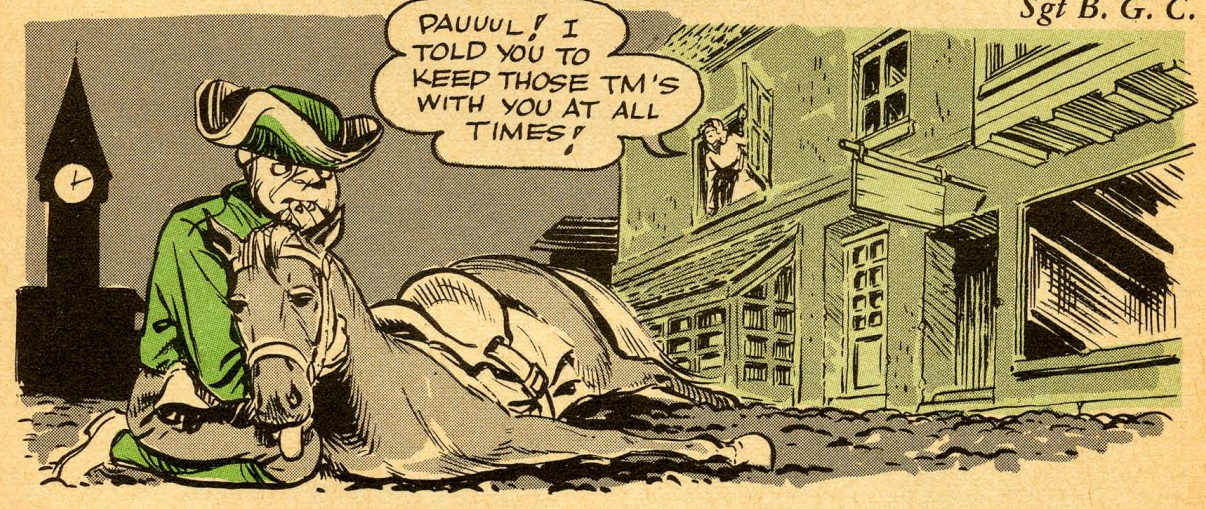
QUESTION AND ANSWER DEPARTMENT

THEY'VE GOTTA BE THERE

Dear Half-Mast,

Maybe you can settle an age-old question—are we supposed to have TM's right with our equipment at all times? If so, what regulation requires it?

Sgt B. G. C.



Dear Sgt B. G. C.,

There are several publications that pin down that question. I'll point out a few.

On page 57 of AR 310-3 it has this to say about publications: "Publications necessary for the installation, operation, and/or maintenance of equipment will be packaged with and accompany all equipment requiring such publications."

The SNL's and the -10 tech manuals for most of the tech services list the technical manual as a part of the On Vehicle Materiel or On Vehicle Equipment. Some TM's, such as TM 9-2350-213-10, even tell where the TM is to be carried.

Paragraph 4a, AR 700-2300-1, states, "The following publications and forms will be carried on each applicable vehicle in a readily accessible location: (1) Latest issue of pertinent operator's manuals and lubrication orders for the vehicle,

and where applicable, for any mounted equipment."

And the last sentence of par 34b, TM 5-505 states that, "The equipment technical manuals always accompany the equipment to which they pertain and so are available for immediate reference."

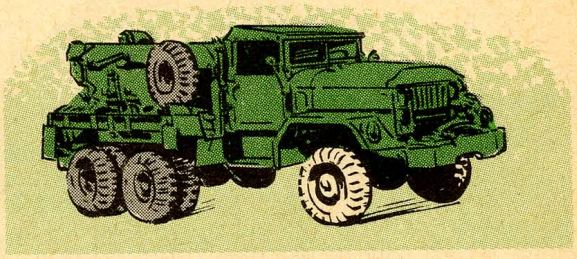
The Transportation Corps has a different setup on their technical publications for aircraft. AR 750-1500-2 (6 Mar 57) gives the dope.

And AR 750-8 definitely includes the TM as a part of the SOP for command maintenance inspections.

It all adds up to the fact that operators' TM's should be with the equipment at all times, just like the LO.

Half-Mast

UPSIDE DOWN?



Dear Half-Mast,

We've got trouble with a rear spring on our M62 wrecker. The first one broke. We slapped in a brand new one, but it was so weak the stabilizing beam rode on it.

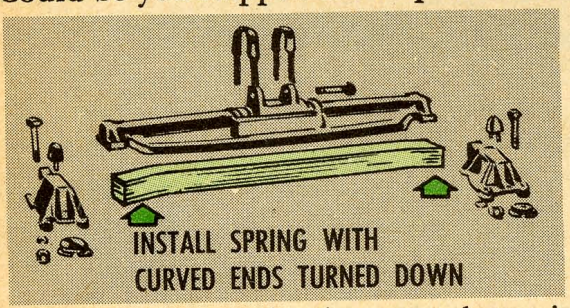
Then we ordered another, using FSN 2510-277-9786 from the G744-series supply manual. But this one's too weak, too. We put this on a UER, but we wonder if this could be the wrong spring for the M62?

Lt C. R. L.

Dear Lt C. R. L.,

That's the right one, Lieutenant: Spring, rear assembly . . . FSN 2510-277-9786.

It's just possible the trouble started when you slapped on that new spring. Could be you slapped it on upside down like the picture shows it in Ord 9 SNL G744 (Jan 54), Fig 16-4.



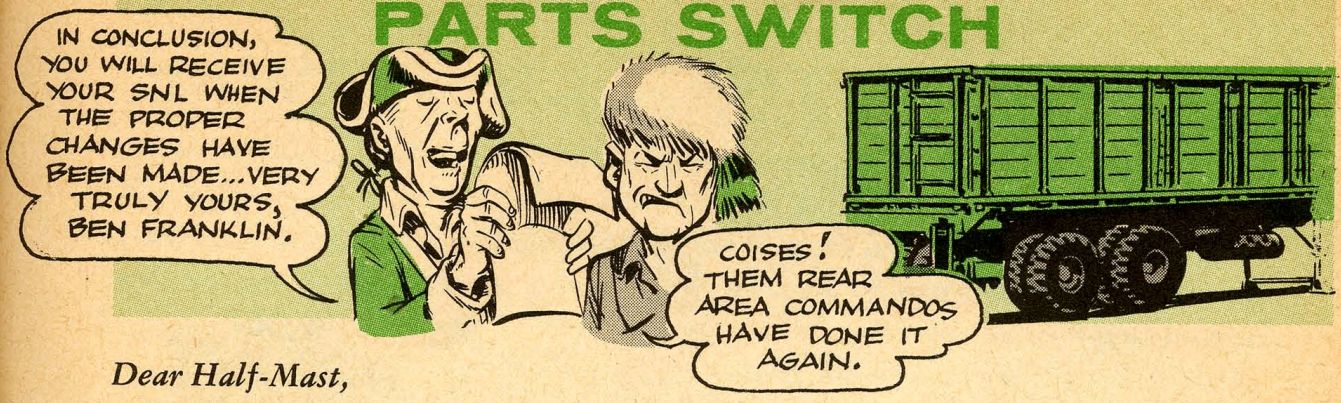
This pix shows the curved ends of the spring turned up, but the right way is down just like the note in Change 2 (26 July 57) to TM 9-8028 says.

When the ends are turned down and the truck's unloaded, there should be about 1⅛-in opening between the spring and the stabilizer. That keeps one from riding on the other.

Like most curves, the ones on these springs should be approached with caution, so check to see that they're turned down when you attach 'em to the brackets on your M62.

Half-Mast

PARTS SWITCH



Dear Half-Mast,

Is there a parts book for the semi-trailer, cargo, 4 wheel, 12-ton, Model M127A1?

The data plate calls for SNL G750, but the latest copy available doesn't cover this trailer.

CWO A. B. U.

Dear CWO A. B. U.,

You're right . . . there've been some changes made in the M127A1 trailer that don't show up in the latest SNL's for the M127 and M127A1.

Biggest difference is in the axle and brake systems. The M127 has the Timken axle and air brakes, while the M127A1 has the Ordnance standard axle and air-over-hydraulic brakes.

The M127A1's new axle and brake systems are the same as those used in the M270A1 semi-trailers.

So, until the G750 SNL's are revised to include the new axle and brake systems in the M127A1, here's the way to find the parts you need.

For everything except the axle and brake systems of the M127A1, use SNL G750. But when you need parts for brake and axle systems, switch to SNL G802, which covers these systems in both the M270A1 and the M127A1.

This should keep your trailers moving until publications catch up with the latest info.

Half-Mast

TRICKLE, TRICKLE–POW!!!

Dear Half-Mast,

I'm real puzzled. At times, some of our G749-series 2½-ton truck drivers leave their trucks' ignitions on—by accident, of course. With the ignition on, the electric fuel pump keeps working.

Oddly enough, we find the oil diluted in some vehicles only. What's even more strange is that on those we find with diluted oil, a breakdown of the carburetor shows that most of the needle valves **are** *seated right and* **aren't** *damaged. On others, of course, the needle valves are either damaged or aren't seated right. These we expect to let fuel through. But what about the others?*

CWO W. J. M.

Dear CWO W. J. M.,

You pinpointed it, awright—the heart of the matter is with the carburetor's needle valve. With the pump pumping, like she'll do with the ignition on, and a faulty or improperly seated needle valve, gas can drain down into the cylinders and crankcase.

But even with a perfectly seated needle valve, it can still happen, because the needle valve does not make a perfect seal. Just to add more puddin' to the saucepan, with either a perfect or an imperfect needle valve, this whole mess doesn't necessarily have to happen. In many cases, even though you do keep the ignition on, as you found out, you may not get gas into the crankcase. It all depends on luck . . . but it boils down to this:

You can be **sure** you **won't** get raw gas in the cylinders and crankcase if you turn the ignition OFF, but leaving it ON leaves you in doubt.

Luck shouldn't be part of this game. Liquid gas trickling past open valves and filling the cylinders can ruin a truck's engine by setting it up for hydrostatic lock —not to mention diluting the oil.

Besides opening the door to a crankcase explosion, diluted oil doesn't do a good lube job—which can lead to scoring connecting rod bearings, cylinder walls and pistons.

So, impress on your drivers the seriousness of leaving the ignition ON when the engine's not running. It's a little late to learn this after a few crankcases blow up under them.

Half-Mast

WEIGHT WORRY

Dear Half-Mast,

We're a bit confused as to what weight oil should be in the engine crankcase of the M47 and M48 medium tanks for temperatures between 40°F and −10°F. The manuals TM 9-7012 (Aug 54) and TM 9-718A (Jan 52) say OE 10. But

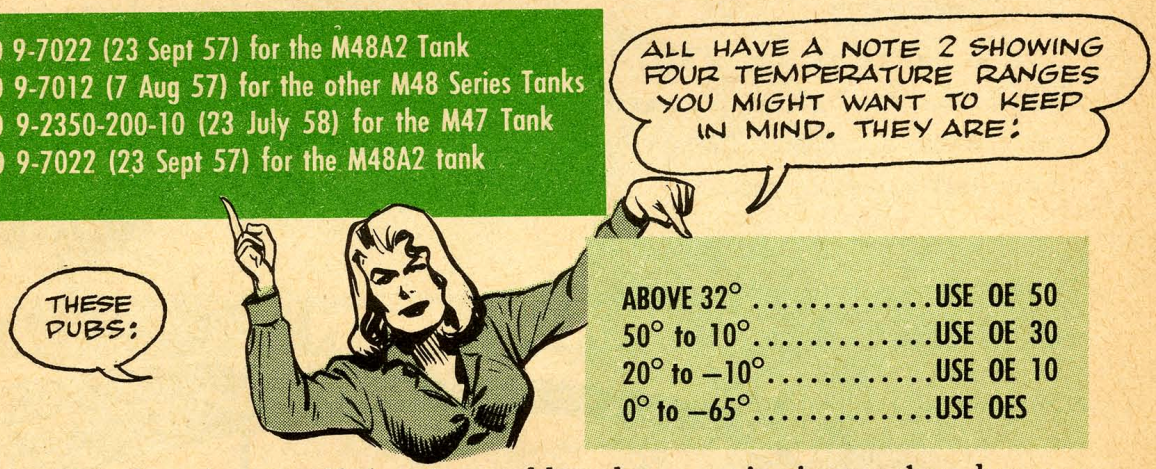
the lube orders, LO 9-7012 (10 Dec 54) and LO 9-7010 (14 May 56) say OE 30. What's the straight scoop?

Sgt D. B.

Dear Sgt D. B.,

There's one rule to remember in these cases which will lead you out of the wilderness: The LO **always** has it over the tech manual.

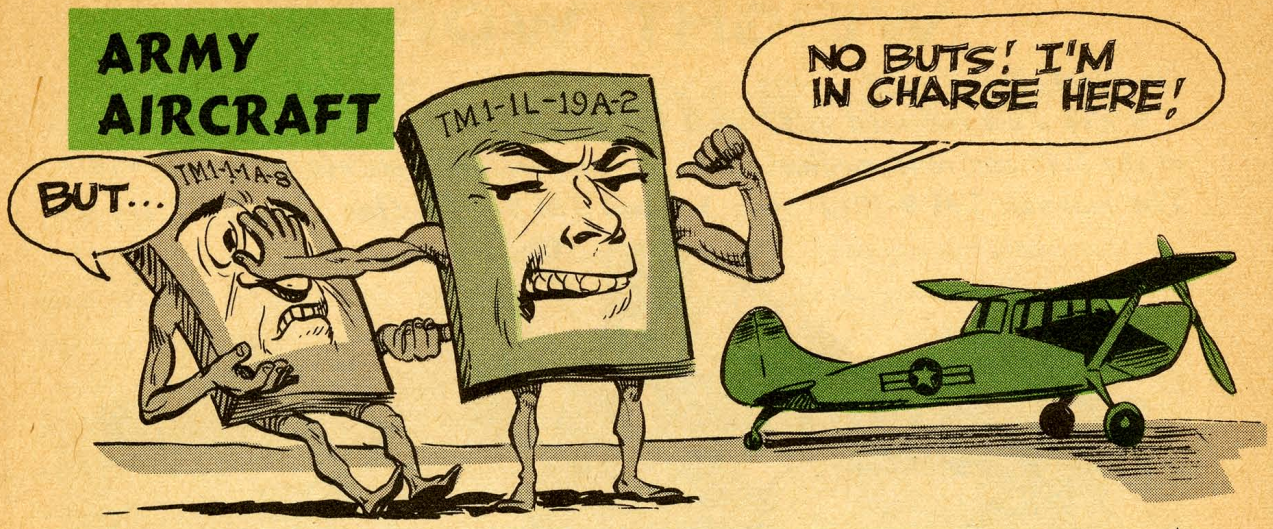
LO 9-7022 (23 Sept 57) for the M48A2 Tank
LO 9-7012 (7 Aug 57) for the other M48 Series Tanks
LO 9-2350-200-10 (23 July 58) for the M47 Tank
LO 9-7022 (23 Sept 57) for the M48A2 tank



Now, this doesn't mean if there's a sudden drop or rise in weather due to a freak spell, you rush out and change oil. Some more good advice to follow is on page 142 of the M48A2 tank manual (TM 9-7022). "Change the grade of lubricants whenever weather forecast data indicate that air temperature will be consistently in the next higher or lower temperature range or when sluggish starting caused by lubricant thickening occurs."

So stick to what the latest LO's say. 'Cause your LO is to your manual like a royal flush is to four of a kind... and there's no deuces wild here, either. Unless, o'course, you get the word from an official source to do otherwise.

Half-Mast



RANKING MANUAL

Dear Half-Mast,

Who's in charge here? TM 1-1-1A-8, December '54 shows one way to safety a turnbuckle. TM 1-1L-19A-2, para 2-53A, revised 1 Dec. '58, shows a different way. We've been complying with the A/C-2, but we've been getting gigged. Whaaa?

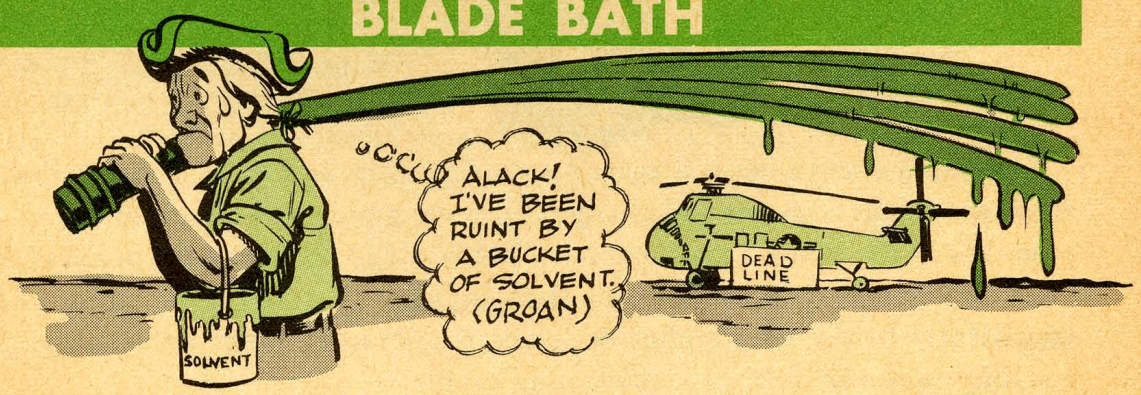
SFC T.S.D.

Dear SFC T.S.D.,

You did right. The TM 1-1-1A-8 is a general TM for all aircraft. While TM 1-1L-19A-2 gives you specific instructions for the Bird Dog (L-19A). Naturally when a general TM varies from the Aircraft TM, you follow the one for your particular aircraft.

Half-Mast

BLADE BATH



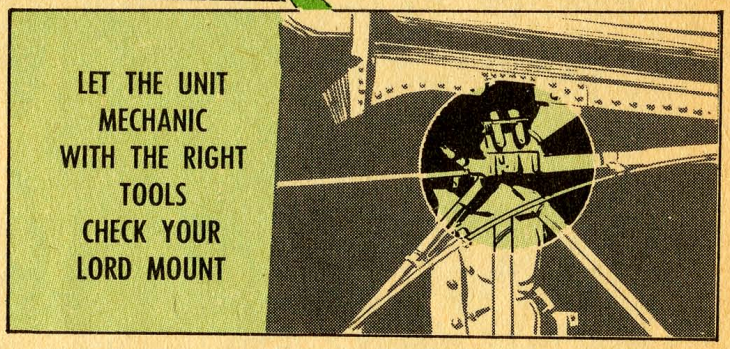
Seems some Chocktaw hostlers are still using steam jennys or solvent to clean their rotor blades. Please to quit it.

TM 1-1H-34A-2, Section 2, para 2-302 lays down the law! **Mild soap only.** Solvents can loosen the bonding of the blades.

DON'T GO POKING ABOUT

If you think you've found a broken Lord mount on your helicopter engines (Sioux H-13's), that's past the limits of serviceability, don't poke a pocket knife blade or a pencil point into it to find out. Good mounts have been shoved over the line by people doing this.

Get hold of the unit mechanic and let him check it with the right tools for you.



You can find the correct dope for inspecting, replacing, or repairing in TM 1-1H-13C-2 (June 58), Section IV. It's in paragraphs 4-42, 4-43, 4-44, 4-45 and 4-46...found on pages 4-13, 4-14 and 4-16.

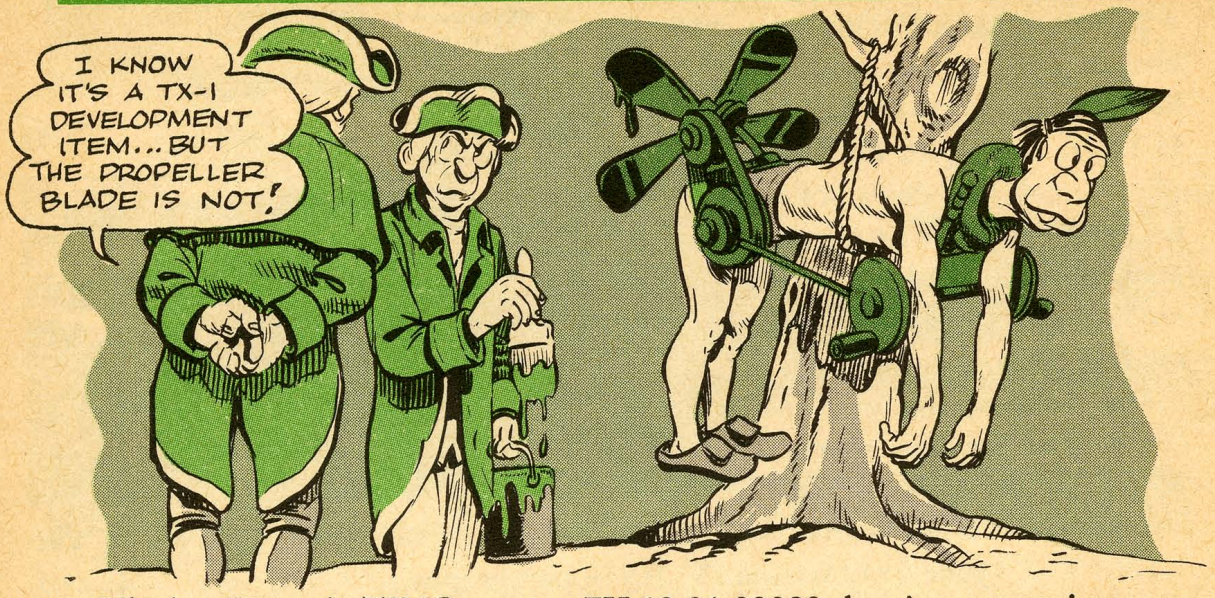
PLUG THE HOLES IN YOUR HEAD!

Oh yes you do have holes in your head—your ears. And if you leave 'em open regularly when working in high noise levels, one of these days you may find your hearing leaving you. And nothing can then be done about it, the harm has already been done.

Which is why the medics will be only too happy to supply you with ear plugs if you are a pilot, crew chief, mechanic or anyone else who has to do his work in real noisy conditions. Because prevention is the only cure for hearing loss due to exposure to noise, and the only time for it is **before** you notice any trouble.

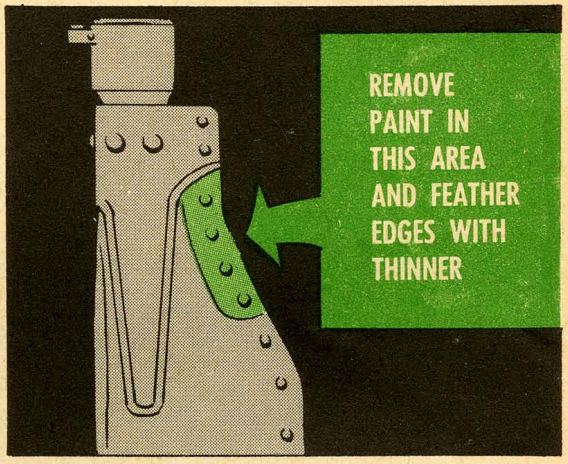
So get your plugs as soon as possible, and wear them regularly. Just as a side bonus, you'll find you are more comfortable and less tired at the end of the day. After all, there's nothing restful about the fluff fluff fluff of the rotor blades, the banshee howl of a helicopter transmission, or the whine of a prop at high RPM. Now is there?

SIOUX TAIL ROTOR INSPECTION



Like it tells you in TSMC message EH-13-01-03080 there's a new twist to your tail rotor inspection on your Sioux (H-13's) with the metal rotor blades.

With lacquer thinner **only**, no steel wool, no sandpaper, no paint stripper, please, you remove the paint from both sides of the trailing edge of the blades. Remove it from rivet three to a little past rivet six, counting outward from the blade root. Feather the edges of the remaining paint, but only with the thinner.

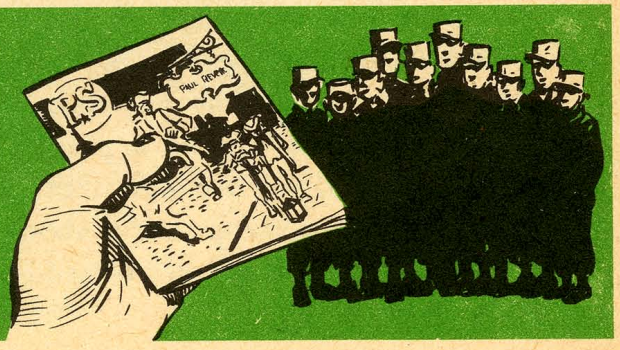


This bare area must be inspected daily for chordwise cracks, and naturally you replace any cracked blades **before** flight.

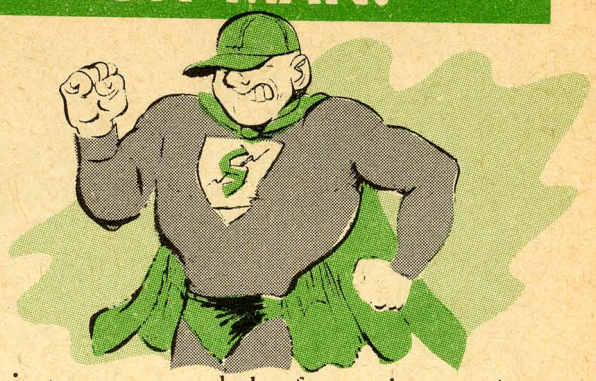
You can protect the bare areas from corrosion with a thin coat of clear lacquer, cosmoline or grease.

Any defective blades you find, send a UER at once, and save the blade—it'll go back to the factory for research.

EACH COPY OF PS IS MEANT FOR 10 READERS. PASS IT ALONG!



DON'T BE AN IRON MAN!

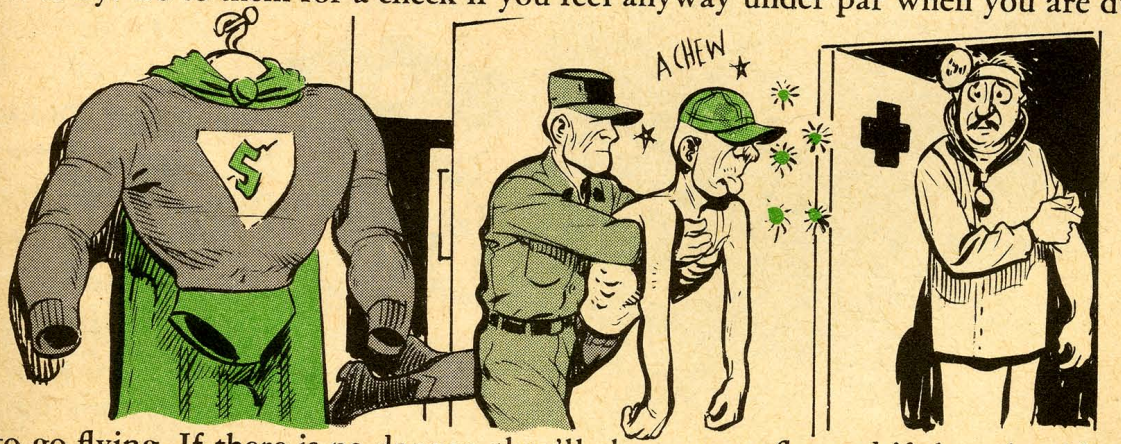


Pilots, of course, have been carefully taught the importance of watching their health like a hawk when flying. But not all the rest of us are hep to the problems.

So you might assume that if you are well enough to come to duty you are also well enough to go flying. 'Tain't noways the case. The changes in atmospheric pressure and the forces imposed on you in flying can sometimes give you real trouble when you'd be pretty much OK if you'd stayed on the ground.

A case in point is the mechanic who flew as a crew member when he had a cold. He knew he was a bit stuffed up, but he didn't realize that his stuffed head had blocked the little Eustachian tubes that connect the middle ears to his throat—they normally serve to equalize the pressure on both sides of his eardrums. So, he went flying, and so, he suffered ruptured eardrums.

You never know just what side effects flying may have on your minor ailments. The flight surgeon and his people are the ones best qualified to decide when you're fit to fly. Go to them for a check if you feel anyway under par when you are due



to go flying. If there is no danger, they'll clear you to fly, and if they should tell you to stay home, it may save you serious and painful complications.

MORE ABOUT YOUR . . .

ENGINEER

QUESTION:

AR 711-541 keeps saying only those items listed in SB 5-70 are to be inventoried and reported on DA Form 5-73. What about those items like air compressors and generators that are not listed by stock number, make and model in SB 5-70? Do you include these?

DA Form 5-73 is titled "Record of Engineer Equipment Requiring Repair Parts Support." But Part II of SB 5-70 lists a number of "Critical tactical items not requiring repair parts." Do we fill out a 5-73 on these items, such as the pneumatic tool and compressor outfits, bridge sets and prefabricated buildings?

MORE ABOUT YOUR . . .

ENGINEER EQUIPMENT INVENTORY

QUESTION:

AR 711-541 keeps saying only those items listed in SB 5-70 are to be inventoried and reported on DA Form 5-73. What about those items like air compressors and generators that are not listed by stock number, make and model in SB 5-70? Do you include these?

DA Form 5-73 is titled "Record of Engineer Equipment Requiring Repair Parts Support." But Part II of SB 5-70 lists a number of "Critical tactical items not requiring repair parts." Do we fill out a 5-73 on these items, such as the pneumatic tool and compressor outfits, bridge sets and prefabricated buildings?

ANSWER:

Yes. The Engineers want all items in SB 5-70 listed, plus any similar items. Change No. 1 to SB 5-70 (3 Feb 59) says the inventory program will include "all equipments listed herein **and similar type equipments**, irrespective of location."

Yes. The AR makes no exceptions. The SB also covers the equipment identification plate program, and in some cases this project is not the same as the inventory program. Change No. 1 to SB 5-70 says those items listed in Part II will be excluded from the identification plate program. Which means they'll still be part of the inventory and will get a DA Form 5-73.

EQUIPMENT INVENTORY

ANSWER:

Yes. The Engineers want all items in SB 5-70 listed, plus any similar items. Change No. 1 to SB 5-70 (3 Feb 59) says the inventory program will include "all equipments listed herein **and similar type equipments,** irrespective of location."

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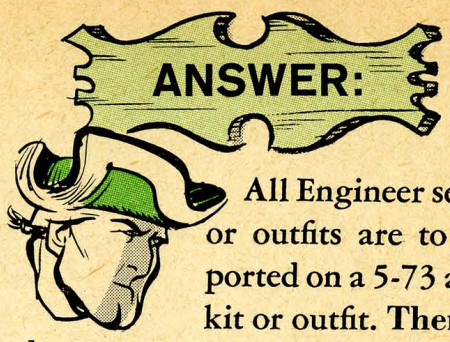
Para 4d(10) of the AR says Engineer components of Engineer or other technical services sets, kits or outfits will be reported by DA Form 5-73. Is this to be done by sets, components or what?



All Engineer sets, kits or outfits are to be reported on a 5-73 as a set, kit or outfit. Then, each and every Engineer item (as listed in SB5-70 and similar items not listed in the SB) within the set is to be reported on a separate 5-73. This is done like so:

Blocks 1, 3, 6 and 10 are to be filled in.

RECORD OF ENGINEER EQUIPMENT REQUIRING REPAIR PARTS SUPPORT (AR 711-641)	ORGANIZATION AND INSTALLATION: 356 th Engr Water Sup Co, Fort Belvoir, Va.	REPORTS CONTROL SYMBOL: ENG-109(R1)

BASIC ITEM IDENTIFICATION (SAM Card No. 100) (22-24)

1. STOCK NUMBER (1-11)	2. SERIAL NUMBER (12-21)	3. POSSESSOR COMMAND CODE (25-27)	6. ITEM DESCRIPTION (45-50)
4610-190-0302		117	Water purification equipment set: diatomite filter, 3000 gal per hr.
4. MAKE (Mfrs Code) (28-32)		5. MODEL (33-44)	

ADDITIONAL ITEM DESCRIPTION (SAM Card No. 101) (22-24)

7. EQUIPMENT STATUS (25)	8. U.S. REGISTRATION NO. (26-32)	9. YEAR OF MANUFACTURE (34-37)	10. UNIT, INSTALLATION OR DEPOT CODE (38-42)
DEPOT STOCK ☐ CODE 8			982AK

11. ENGINEER OPERATING ENGINE (SAM Card 200) (22-24)		12. ENGINEER PRIME MOVER ENGINE (SAM Card 201) (22-24)	
a. MAKE (Mfrs Code) (25-29)	b. MODEL (30-44)	a. MAKE (Mfrs Code) (25-29)	b. MODEL (30-44)
c. SERIAL, TYPE OR SPEC. NO. (45-56)	d. FUEL ☐ DIESEL CODE 3 ☐ GASOLINE CODE 6 (57)	c. SERIAL, TYPE OR SPEC. NO. (45-56)	d. FUEL ☐ DIESEL CODE 3 ☐ GASOLINE CODE 6 (57)

13. ACCESSORY POWER OR POWERED EQUIPMENT (SAM Cards 300, 301, 303, 308) (22-24)

a. MAKE (Mfrs Code) (25-29)	b. MODEL (30-43)	c. SERIAL NO. (44-56)	d. ITEM DESCRIPTION (57-69)	e. CAPACITY (70-80)

c. SERIAL, TYPE OR SPEC NO. ☐ DIESEL CODE 3 ☐ GASOLINE CODE 6

19. REMARKS

Blocks #2, 4, 5, 8, & 9 - Not applicable

In Block 19 you note that inf required by Blocks 2, 4, 5, 8 an 9 are not applicable

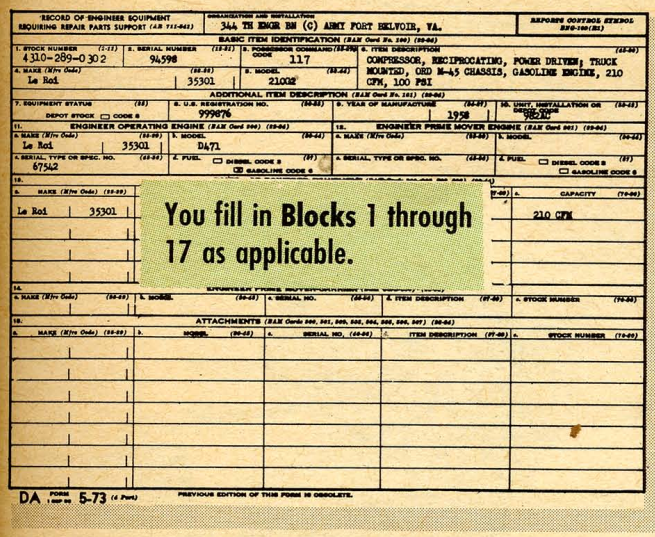
In Block 20 you indicate the ap plicable DA Supply Manual 5- series in the "Other" column.

20. APPLICABLE OPERATING AND MAINTENANCE PUBLICATIONS

TECH MANUALS PARTS LIST, TYPE 7, 8 OR 9	LUB ORDERS	MOD WORK ORDERS	TECH BULLETINS	OTHER
				SM 5-4-4940-S11

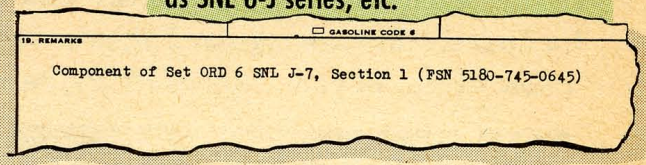
21. TECHNICAL EDIT BY:	22. DATE

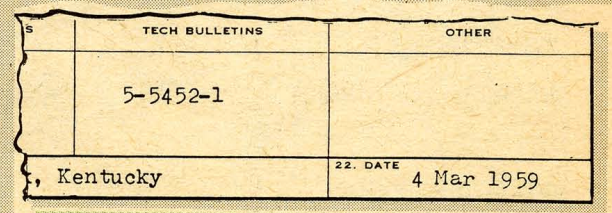
Engineer equipment (as listed in SB 5-70 and similar items) that is included in other technical services sets, kits or outfits is to be reported as separate items on 5-73's like so:



You fill in Blocks 1 through 17 as applicable.

In Block 19 you note that the item of equipment is a part of a set and specify the technical service set number . . . such as SNL 6-J series, etc.





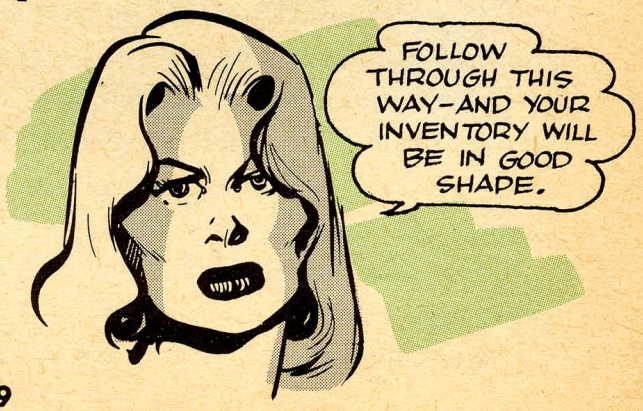
In Block 20 you indicate the applicable publications.

QUESTION:

Para 10ah of the AR says that when filling out item 15 to list only "attachments for equipment as identified by item description and Federal Stock Number of the basic equipment." This appears to mean that attachments which are issued with the basic piece of equipment, and are included as part of the nomenclature and description of the basic equipment, are the only ones to be listed in item 15. But in PS 75 you show a boom and fairlead listed as attachments for the crane shovel. These are separate items, with their own stock numbers, and they're listed in SB 5-70. According to the AR these should not be listed in item 15 as attachments. Did PS boot one on this?

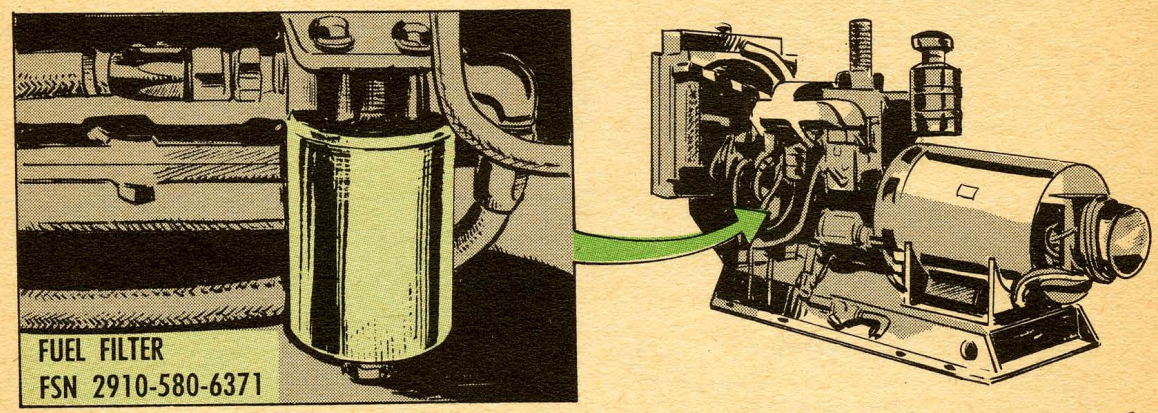
ANSWER:

Yes, PS booted one in listing those items as attachments. I have been pulling my hair out ever since. Item 15 is only for those attachments which are issued with the major item and are included under the same stock number as the major item. That boom and fairlead are separate items and should be reported on their own 5-73's.



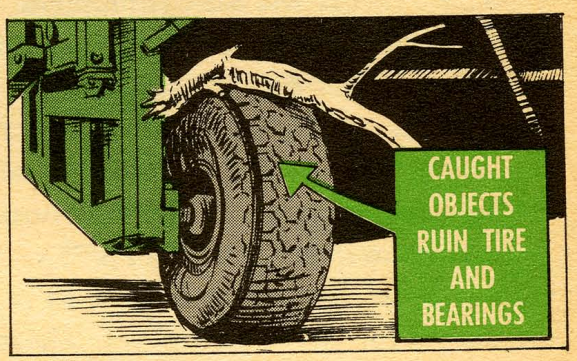
GOT YOUR FILTER?

You guys with the model NHRSGA-601-150, 150 KW Cummins generator, engine serial numbers 160820 through 170846, can now get the right fuel filter for your set through regular Engineer supply channels or by local purchase. Make a note of this in your copy of PS 73, page 59.



The filter you want comes under FSN 2910-580-6371, Federal Supply Code 73370 (Fram Corp), Part Nr. C1106PL, Element, or Code 15434 (Cummins Engine Co), Part Nr. BM33761. You don't use the filter listed in ENG 7, 8, & 9-5274.

A LOOK'LL PAY OFF

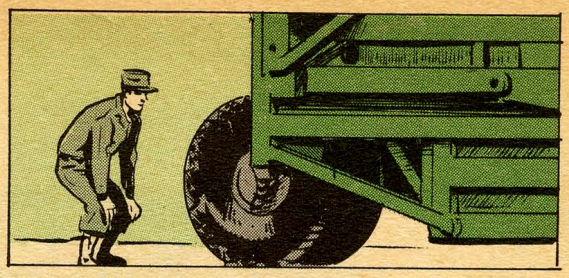


Saw a tractor operator looking mighty sad the other day. His pride was hurtin'—and he was thinking maybe his wallet would be, too.

The guy's an old hand. He can handle a tractor with ease, and put it through its paces without working up a sweat. Seems he just got carried away—and it carried away the price of a wheel bearing and a tire on the scraper he was biting payload chunks of earth with.

While clearing an area for a rifle range, he let a small tree and some underbrush get caught between the tire and the scraper bowl. Don't know exactly how long it was wedged there—could have been most of the morning. Fact is, he didn't

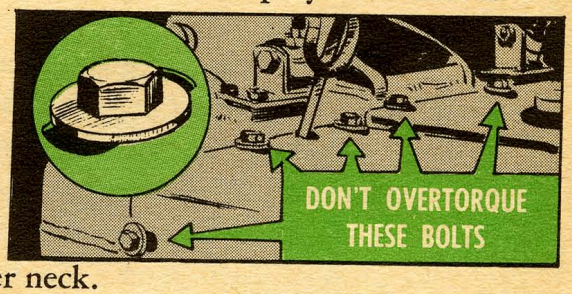
notice it. And the wheel bearing and the tire wore out before the tree did.



You guys working pans behind tractors might keep this in mind. Take a walk around your rig when you take a break and give it a look-see—especially when there's a chance some junk could get caught somewhere in the innards and give your equipment a rough time.

NOT TOO TIGHT

Tight? Sure, you want to make the hood capscrews on your IHC TD-18 tractor tight, but you don't want to over-torque 'em so there's no play in the hood.



The panels are slotted to give with the vibration of your tractor when you're operating 'er. If the engine hood is fastened real tight to the radiator guard so there's no movement, you're going to get extra wear and tear on the exhaust pipe and the hydraulic tank filler neck.

Once you've got the bolts tight—that's fine. Making with the extra muscles will only shear the heads off . . . or stop the movement of the hood.

In either case, you've got trouble.

FREE RELAYS

Got troubles with the two-second time relay (Part Nr. CJ-1577-XBXMG2) on your Hollingsworth 45 KW generators, Model JHMX-45B, serial numbers 1 through 237?

Then you want to fill out a UER pronto and rush it right off to the Commanding General, Engineer Maintenance Center, P.O. Box 119, Columbus 16, Ohio, Attn: EMCJX.

They'll see you get an improved relay for free.

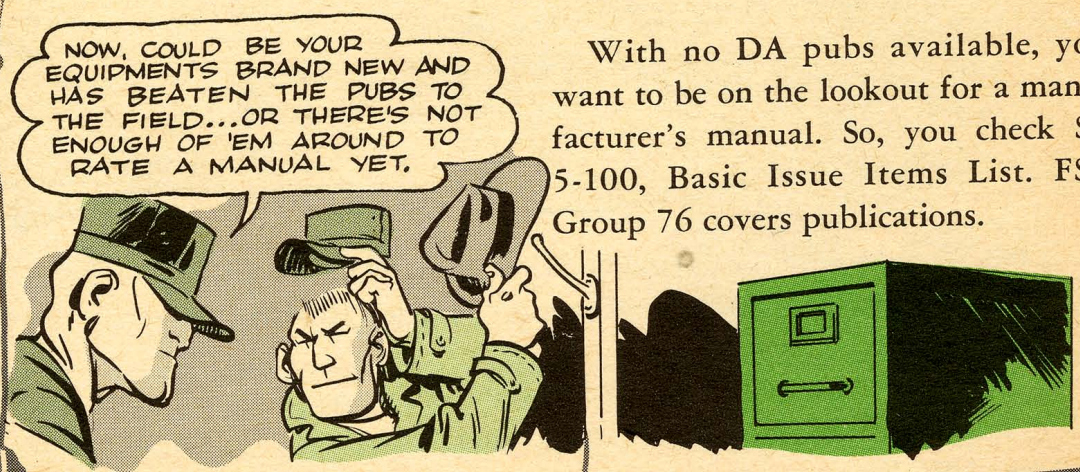
MISSING ENGINEER PUBS?
SOLVE YOUR PROBLEM WITH . . .

MANUFACTURERS'

You've checked DA Pamphlets 310-4, Index of Technical Publications, and 310-25, Index of Supply Publications, and you say there's no record of a TM, TB, LO, ENG 7 & 8...or any kind of a pub for your rig.

'Course, if your pubs were listed in either of the indexes, then your detecting bit would have been over. All you'd have to do then would be to send through a requisition on a DA Form 17 like it says in AR 310-1 . . . same as you would for any Department of the Army pub.

LISTED PUBLICATIONS



With no DA pubs available, you want to be on the lookout for a manufacturer's manual. So, you check SB 5-100, Basic Issue Items List. FSC Group 76 covers publications.

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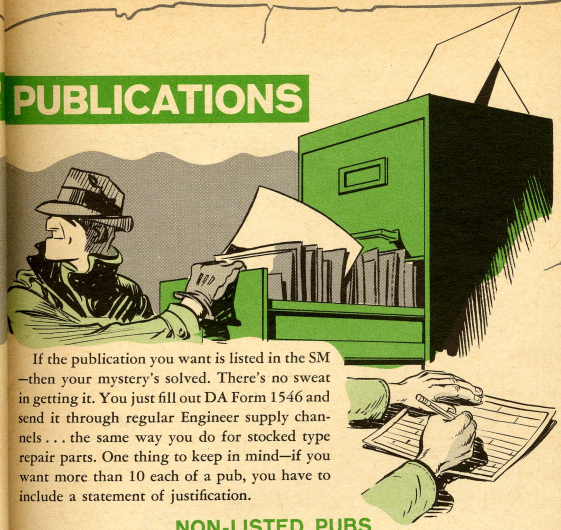
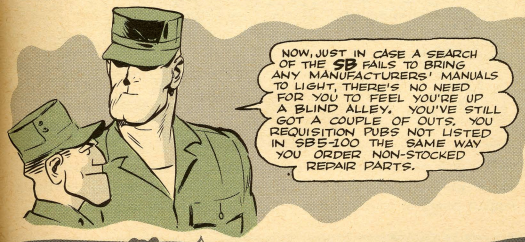
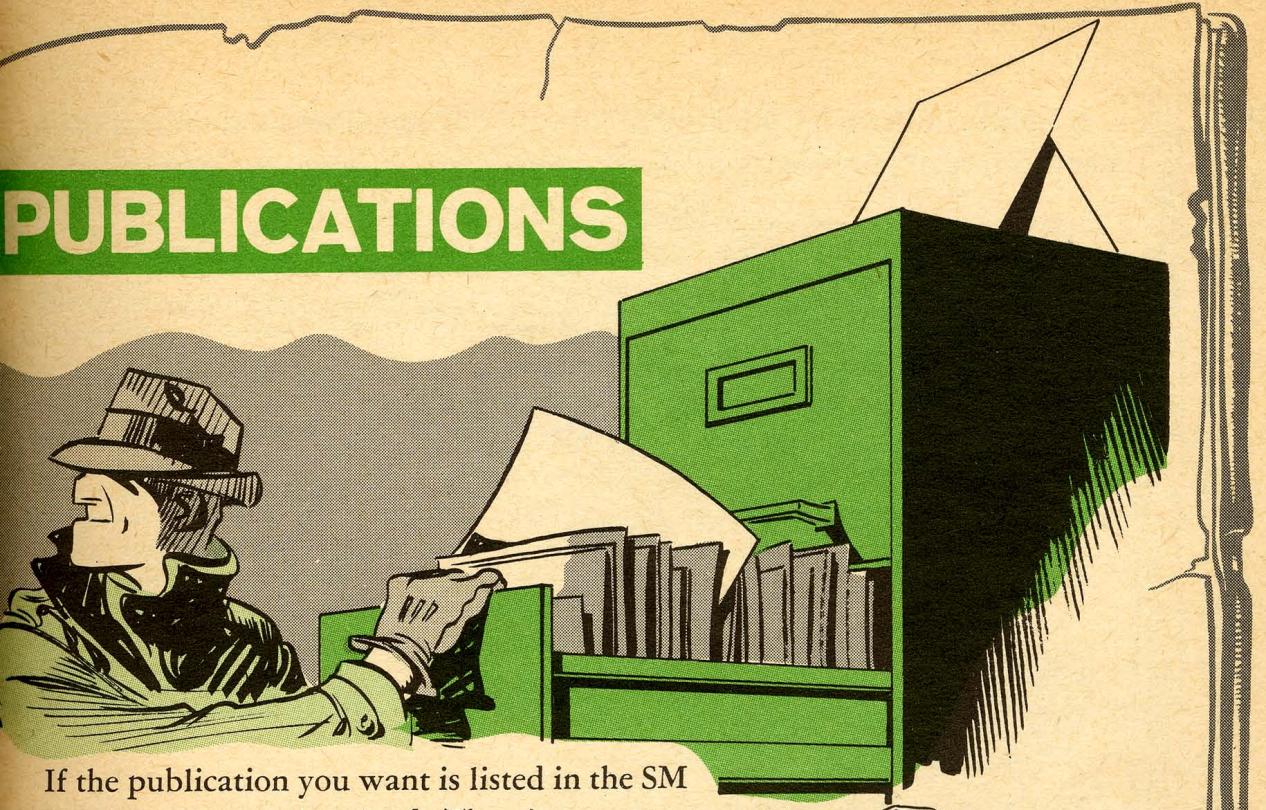


If the publication you want is listed in the SM—then your mystery's solved. There's no sweat in getting it. You just fill out DA Form 1546 and send it through regular Engineer supply channels . . . the same way you do for stocked type repair parts. One thing to keep in mind—if you want more than 10 each of a pub, you have to include a statement of justification.

NON-LISTED PUBS



PUBLICATIONS



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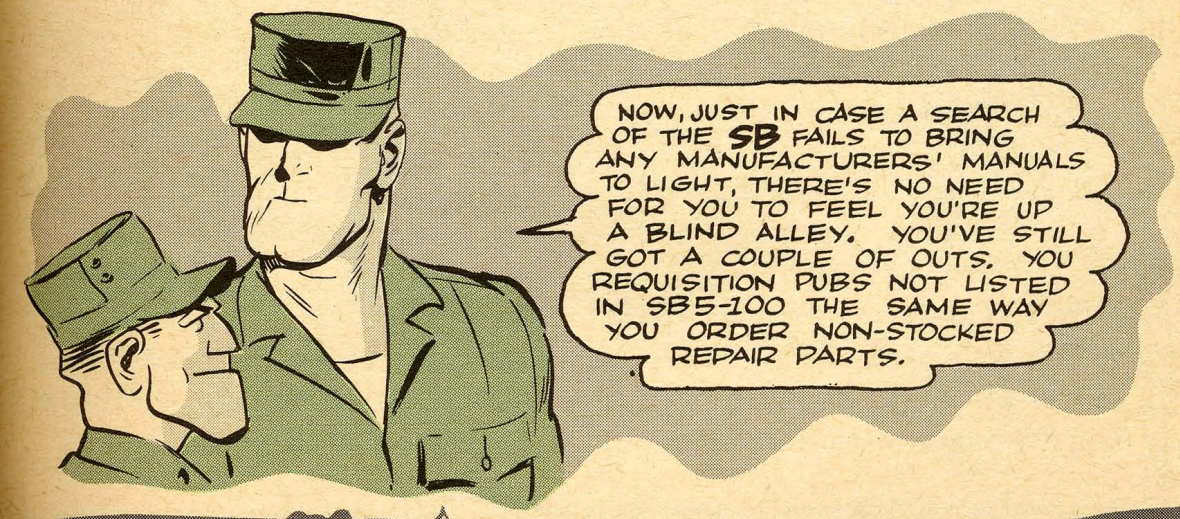

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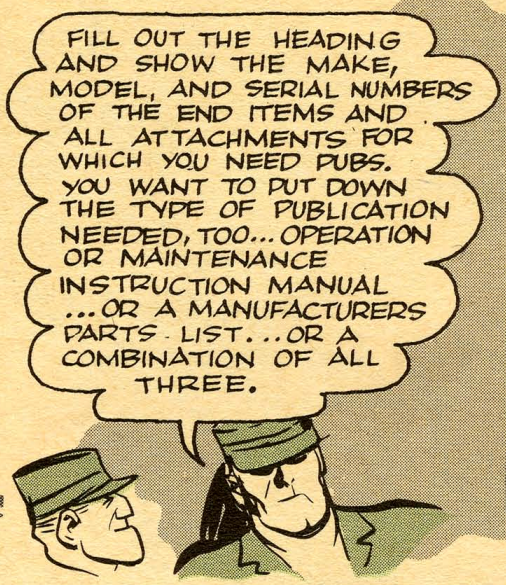


1. TO: ---Co, --th Engr Group (Cons)
2. FROM: Repair Parts, ---th Engr Co (FM)

END ITEM IDENT	3. END ITEM NAME AND MANUFACTURER	4. MODEL	5. SERIAL NUMBER	6. PUBLICATION - YEAR - PAGE NUMBER
	Generator, Pioneer	BC-20L	1059267	TOE 5-312R-55-4

7. STOCK NUMBER	8. ITEM DESCRIPTION	9. U/M	10. DEST.
NSN	Manual, Operation and Maintenance, w/parts list	ea	

Powered by Briggs and Stratton Engine, Model 23FBP, Type 2011253, Serial 543819

11. ORGANIZATION CODE	12. REQUEST NUMBER	13. DEMAND: INITIAL	13. DEMAND: REPLACEMENT	14. QUANTITY REQUIRED	15. QUANTITY TURNED IN	16. TRANSPORTATION CODE	17. TRANSACTION CODE	18. DATE OF REQUEST
	21-59	I		2				5 Feb 59

19. SOURCE OF SUPPLY	20. FIA CATEGORY	21. FUNDS CITED	22. STOCK NUMBER CHANGE	23. SUBSTITUTE ITEM STOCK NUMBER

24. DATE	25. VOUCHER NUMBER	26. ISSUED	27. DUE-OUT	28. POSTED TO STOCK RECORD (Initials & Date)	29. UNIT PRICE	30. TOTAL PRICE
					7.50	15.00

31. FISCAL CODE | 32. POSTED (Initials & Date) | 33. COMMAND MANAGEMENT DATA ☐ FUNDED ☐ NON FUNDED ☐ CONSUMABLE ☐ NONCONSUMABLE

34. COST DETAIL ACCOUNT NUMBER | 35. LOCATION | 36. REMARKS: No official TM published Mfr's manual required

QUANTITIES AS INDICATED HAVE BEEN		QUANTITIES AS INDICATED HAVE BEEN		APPROVED	
RECEIVED / ISSUED	STOREKEEPER (Initials & Date)	RECEIVED / TURNED IN	AUTHORIZED REPRESENTATIVE (Initials & Date)	DATE	SIGNATURE
				5 Feb 59	E. Mitchell, 1st Lt, CE

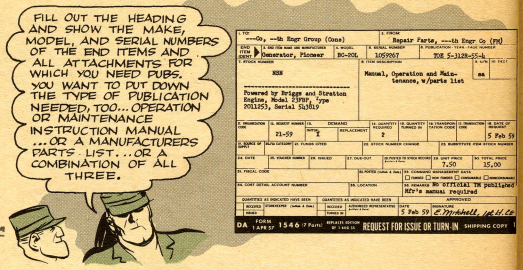
DA FORM 1 APR 57 1546 (7 Parts) REPLACES EDITION OF 1 AUG 55 — REQUEST FOR ISSUE OR TURN-IN — SHIPPING COPY 1

You also want to include the **estimated** unit cost and total cost, and the fund account (like it says in AR 37-60) on each requisition for non-stocked manufacturers' manuals.

SPECIAL LISTS

So, you make an informal request to your support unit for a special parts list for your particular rig. There're local ground rules on the way you do this, so get the dope on how to go about getting these lists from your direct support people or your Engineer Regional Maintenance Representative.

You fill out the requisition (DA Form 1546) just like you do for stocked manufacturers' pubs—except you add more detail in the item description.



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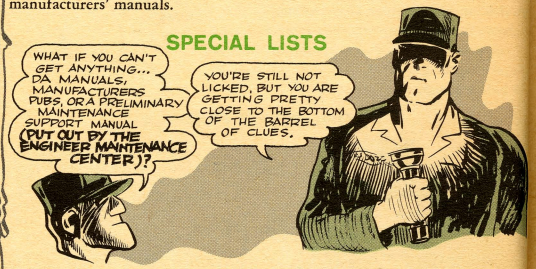

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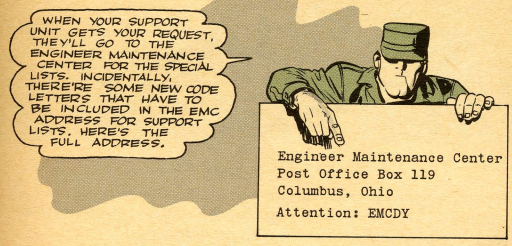
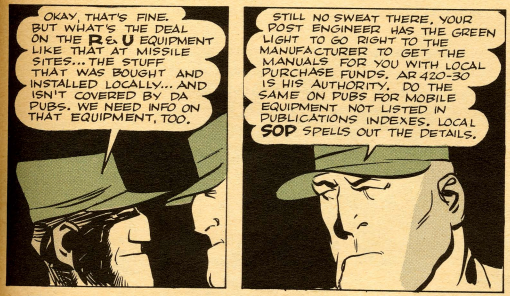


R & U EQUIPMENT MANUALS



These are your clues for tracking down publications. Once you start putting them all together, there's no more mystery. They fit in place like a jigsaw puzzle . . . and your case is solved.

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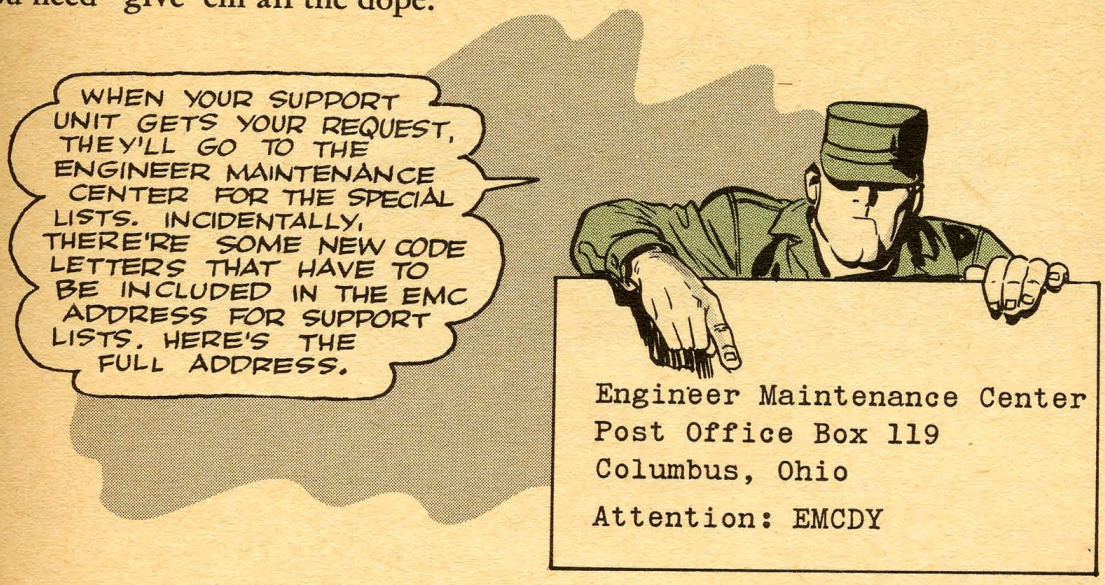

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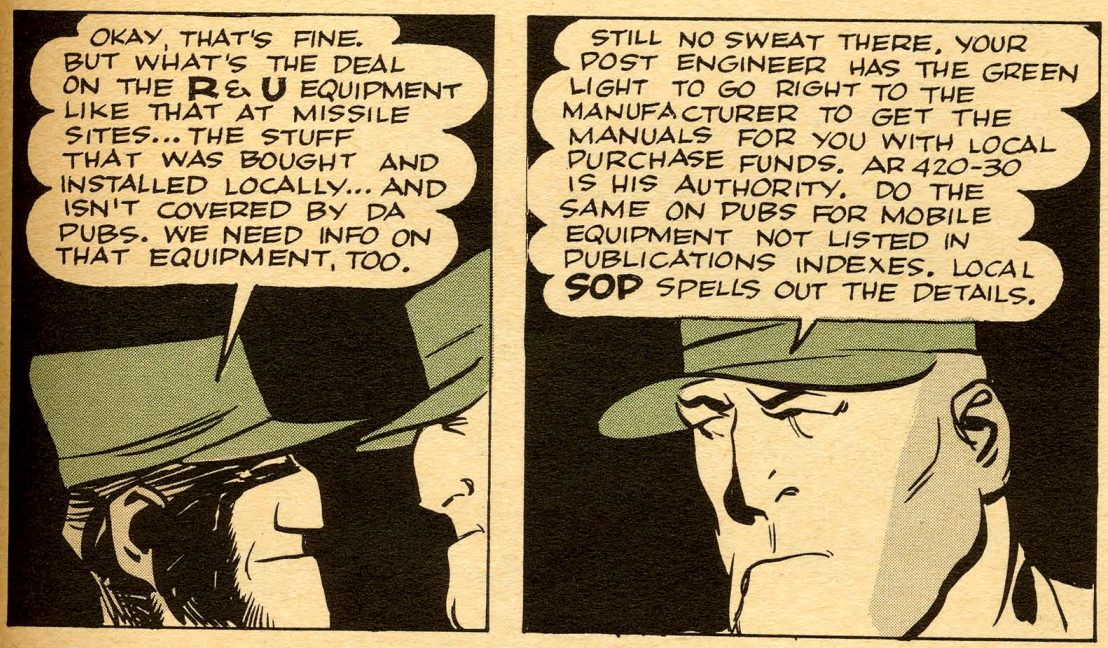

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TWO FINGERS, PLEASE

That's right, two fingers should be plenty for all practical purposes.

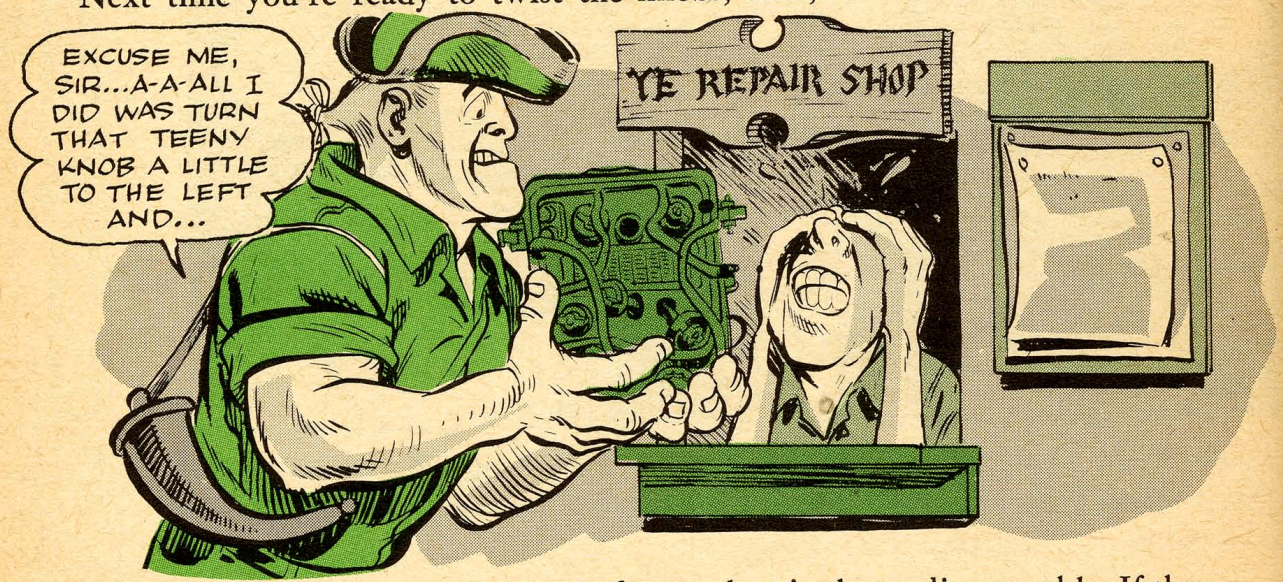
Two digits are all an operator needs at any time when he faces the control panel of a radio set and starts tuning, adjusting, setting or calibrating.

Figure it this way:

Your radio set has no muscles. Not even one. It's built to respond to your finger-tip demands. If you've got internal complications, throw the OFF switch and call for help.

It's sad to see sets sitting around, waiting for repair after losing a tuning tussle with an operator who was very, very, very strong and forced the issue.

Next time you're ready to twist the knobs, then, sort of remember there're



many more muscles in any two of your fingers than in that radio assembly. If they can't give you the right twist, there's more trouble than meets the eye. Then it's time for the repairman.

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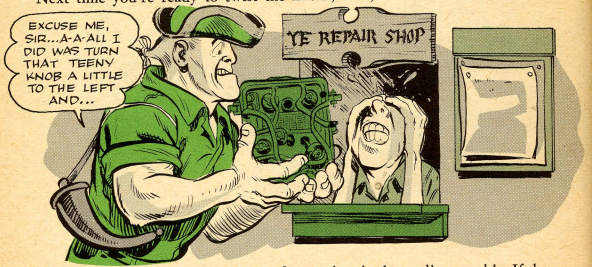

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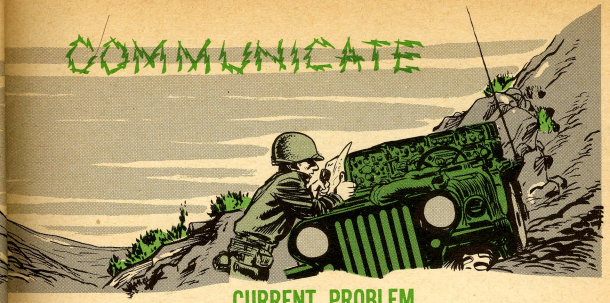
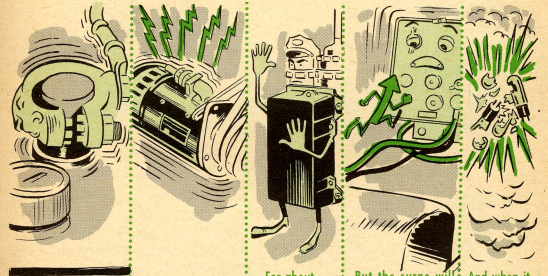


CURRENT PROBLEM

When the cable jumps—the radio will cry.

It'll yell "ouch" loud and clear anytime a sharp jab of extra current shoots through your 6, 12, or 24-volt electrical system.



Every time a battery cable jumps or shifts its grip on the battery post of your vehicle

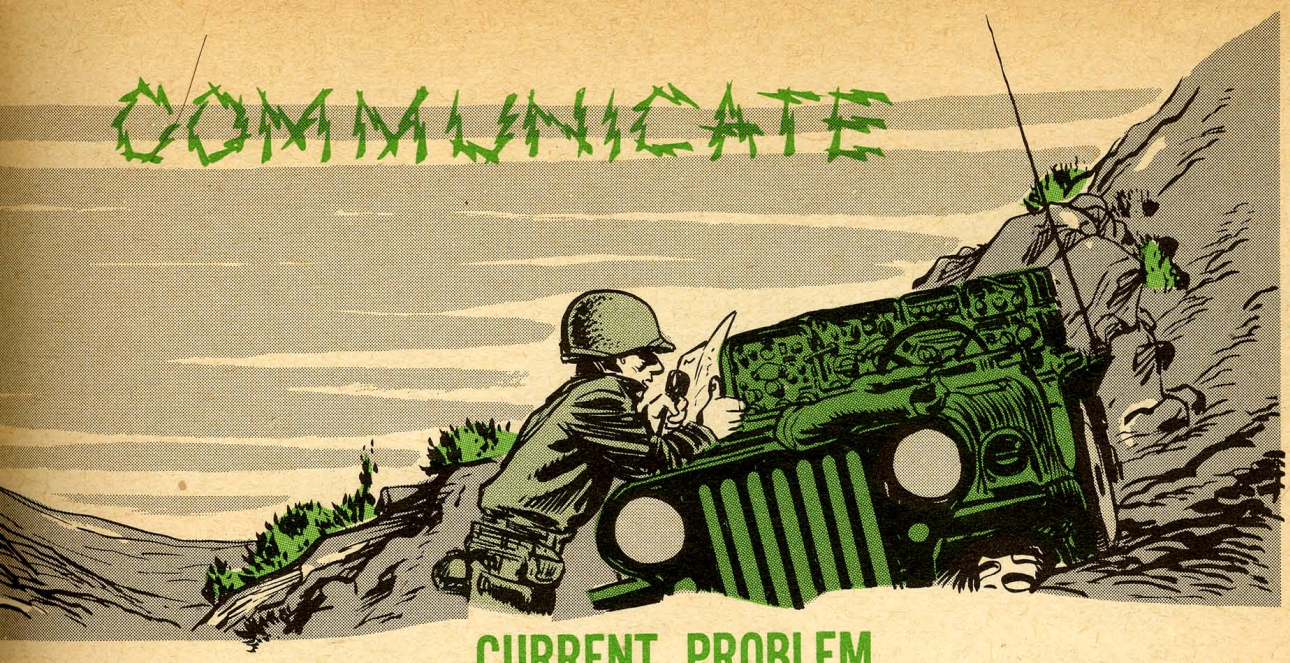
The generator puts out a sudden split second surge—not for long, of course, maybe—

For about two tenths of a second until the regulator takes charge

But the surge will run over the maximum allowable voltage and head straight for the vehicle mounted radio

And when it gets there the sound of tinkling glass tubes soon will be heard

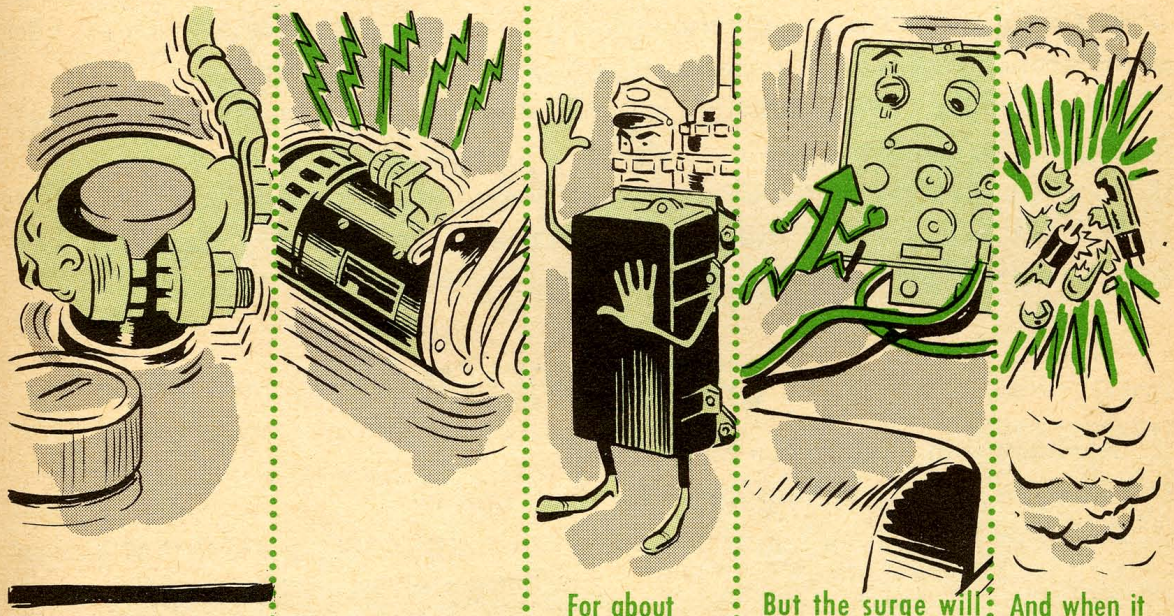
So pay close attention to the PM dope on batteries and battery cables you'll find in your vehicle's TM. And keep an extra-sharp eye out for a loose cable anytime your vehicle's mounting a radio.



CURRENT PROBLEM

When the cable jumps—the radio will cry.

It'll yell "ouch" loud and clear anytime a sharp jab of extra current shoots through your 6, 12, or 24-volt electrical system.



Every time a battery cable jumps or shifts its grip on the battery post of your vehicle

The generator puts out a sudden split second surge—not for long, of course, maybe—

For about two tenths of a second until the regulator takes charge

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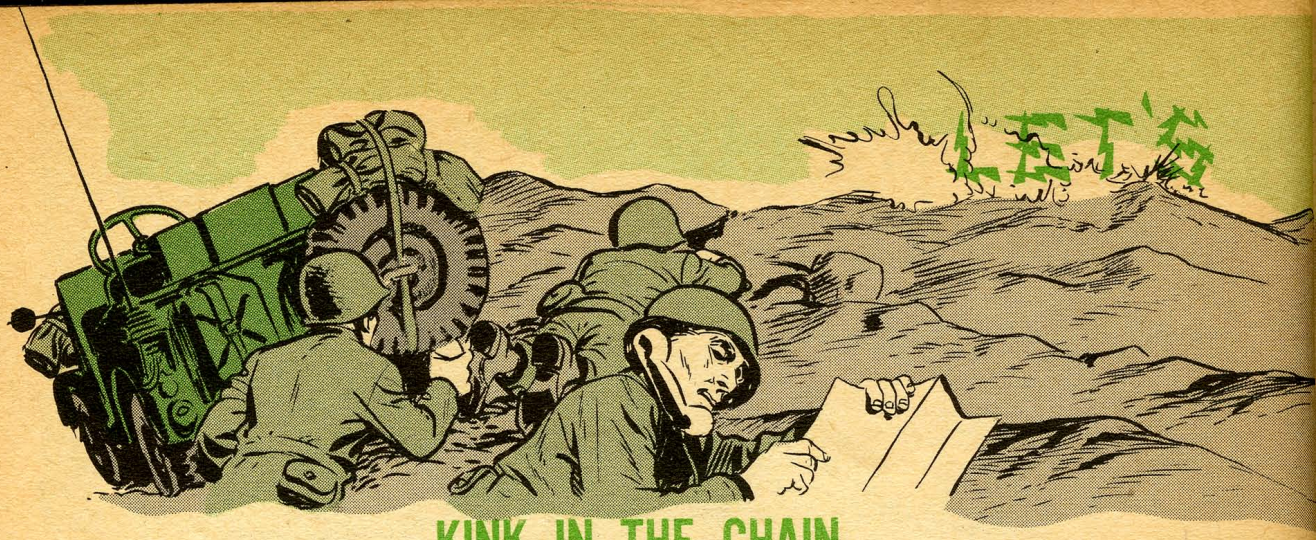
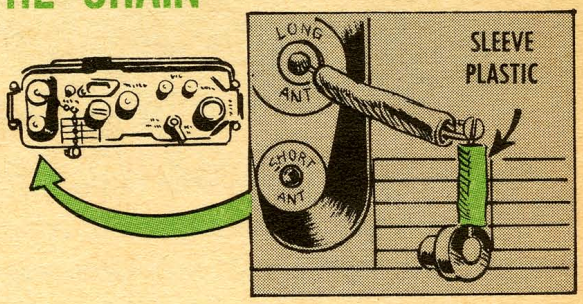


KINK IN THE CHAIN



Dear Editor,

It's never too good to have a kink in your chain.

Especially when you want to cap a connector or plug on a radio set. Or uncap it. Because a link chain with a kink in it is hard to handle . . . sometimes likely to get broken after a while . . . and many times prompts an operator to get rid of the chain altogether.

And when the chain is missing, you can almost bet your last pay that the cap isn't going to hang around long, either.

So we put a sleeve on the chain. A short length of plastic spaghetti—cut to the right length—does it neat and quick. It keeps the chain straight and prevents it from snagging. Looks sharp, too.

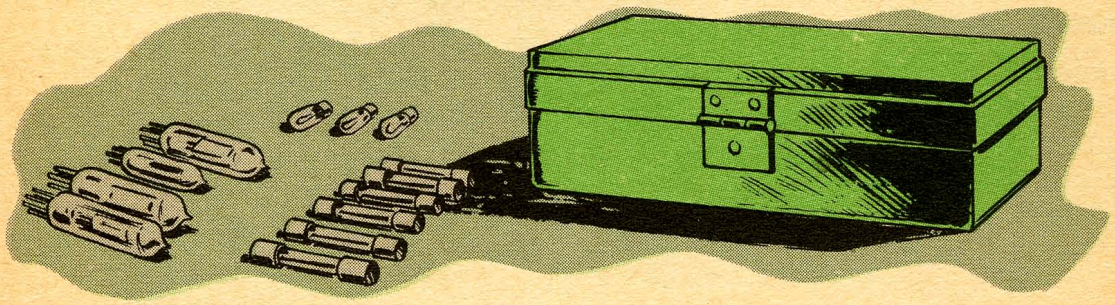
CWO H. H.

SPARE PROBLEM

One more thing before you hit the road!

Have you got the running spares for that radio set?

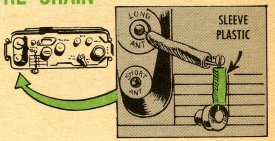
You know, the tubes, lamps, fuses and other replaceable parts that should be



packed in the running spare case (CY-684/GR) and kept close to the radio.

After all, those spares are the nearest thing to a supply room that an outfit will see until it winds up its business and heads for the corral.

KINK IN THE CHAIN



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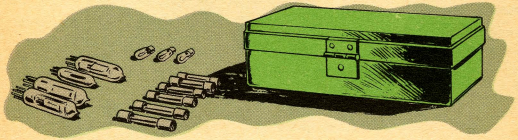

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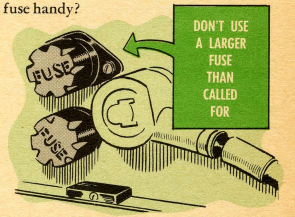
After all, those spares are the nearest thing to a supply room that an outfit will see until it winds up its business and heads for the corral.

Running off without your spares is like putting everything on one roll of the bones. Just let one thing go wrong, and you're out of action. Worse part of it is that some anxious dial twister is likely to start trying to make some field repairs **even without** his running spares. That'll get you a set that's boloxed up but good, instead of just out of action for the lack of a component. Really wrectified!

So case your set, and let those spares run right into action with the rest of the communications gear.

Question: Any harm in slipping in a 2½-amp or 3-amp fuse when the circuit calls for a 2-amper and there's no 2-amp fuse handy?

Answer: Smell something? That's a tube or three in your radio set gettin' hot under the overload 'cause somebody figured the bigger the better when it comes to fuses. Not ever so in any electrical equipment.



The danger of over-fusing has crouched close to the elbow of radio operators since the whole business began many, many, many years ago.

When it comes to fusing, it's just like the cartridge in your M1 rifle. No room or reason for anything but the right item. Sparks may fly even if you try a fuse that's maybe only ½-amp more than the traffic calls for.

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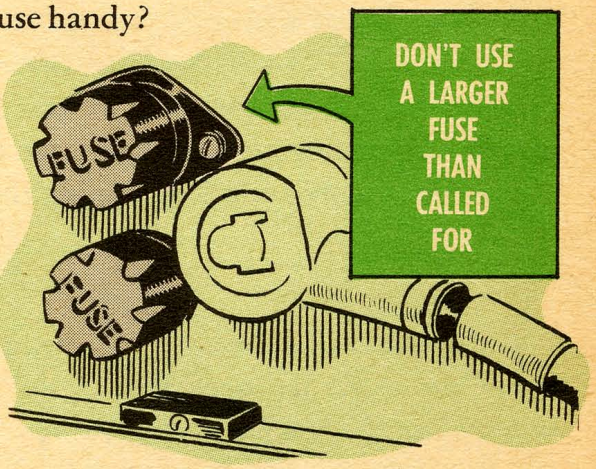

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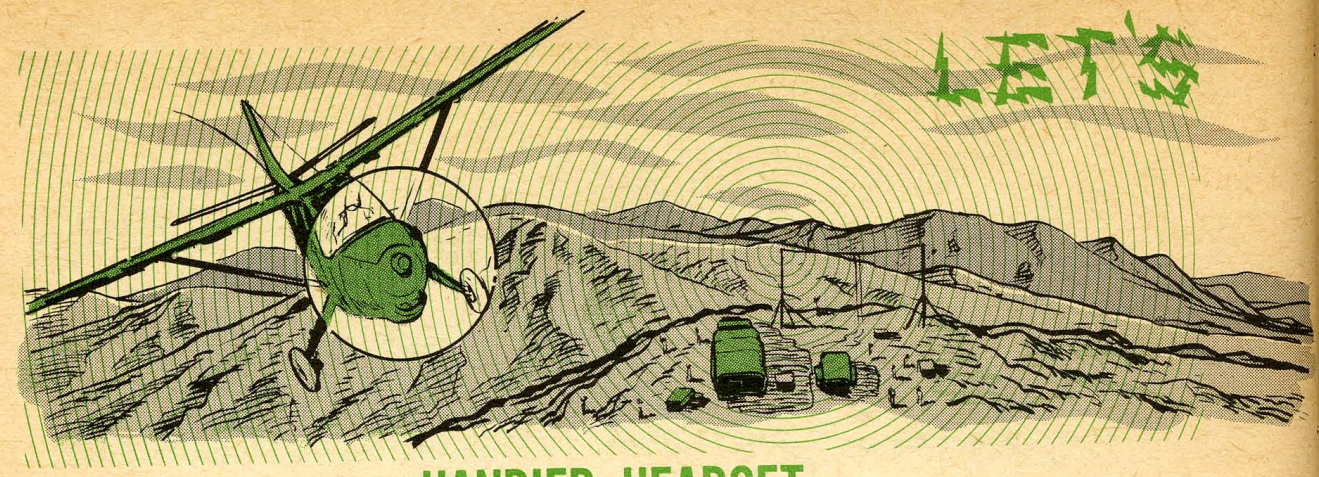
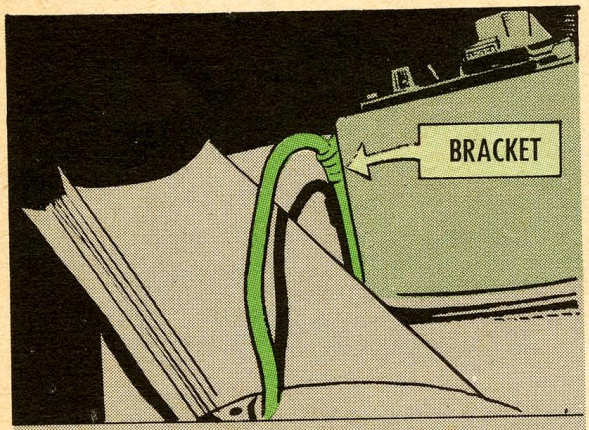


HANDIER HEADSET

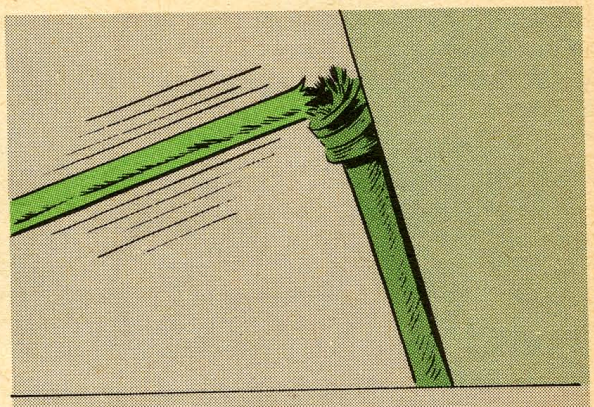
Dear Editor,

We've been sort of on a short rope up there in our L-19's. Sure, it's great having the new AN/ARC-44 installed and doin' a job for us. But there's one thing that's got us wrapped up. It's the Headset (H-101 A/U) cable on the ARC-44.

These pictures show how the cable is bracketed to the edge of the set.



And you can see how that bracket cuts down on a man's freedom to maneuver the headset.

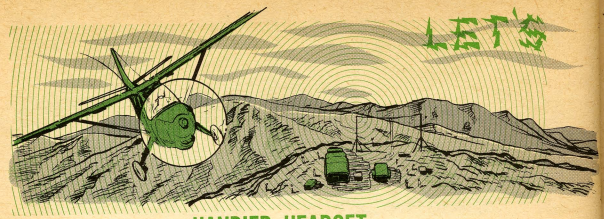


Also puts a strain on the bracket and could lead to a worn, frayed, and maybe broken cable.

A few seconds of work and we just took the bracket off altogether. Our CO gave it his blessing, and we figure we made life a little easier for the man at the control—not to mention lengthening the life of the cable.

Aviation Section
Ft Rucker, Ala.

(Ed Note—Sounds handy. As long as the cable doesn't flap too loose and wrap a man up or get wrapped around the stick. And speaking about that, why not just replace the bracket with a spring clip? That'll keep the cable from wrappin' and flappin' for sure. When a man's sitting in the seat he can open the clip and have plenty of freedom to exercise his cable. When the seat's empty, the spring clip will keep the cable secure.)



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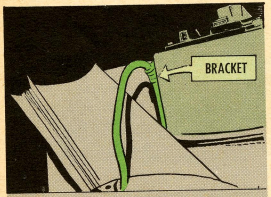

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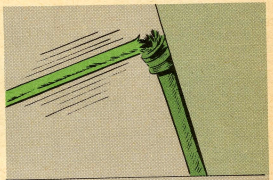

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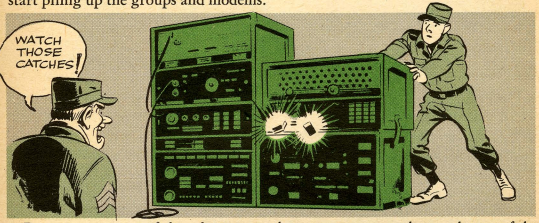
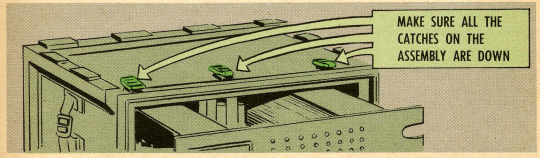
PILING UP THE ANTIQUES

Handling antiques (AN/TCC's) calls for a little care, especially when you start piling up the groups and modems.



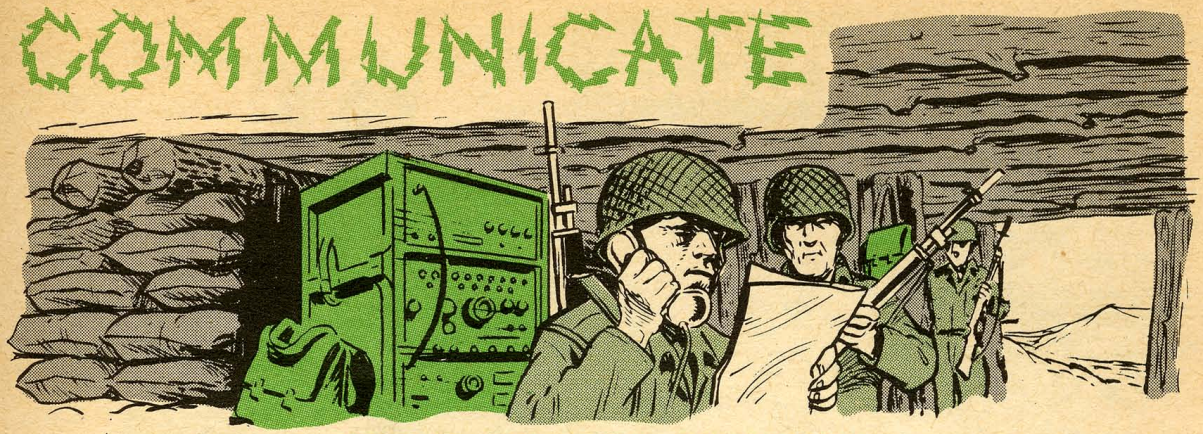
Because every one of them has two or three cover snap-catches on the top of the transit case that're used when the time comes to pack up and clear the area.

Those catches, when the cover is off, go down flush with the top of the case, 'course, so a man can pile up the assemblies of an AN/TCC-4 or AN/TCC-20, for example. But it sometimes has happened that a man heaved a modem into position without first making sure all the catches on the assembly directly underneath were lying down.



When they're not, they get bent and twisted and become useless. So, check those catches, then, next time you're setting up an "antique".

COMMUNICATE



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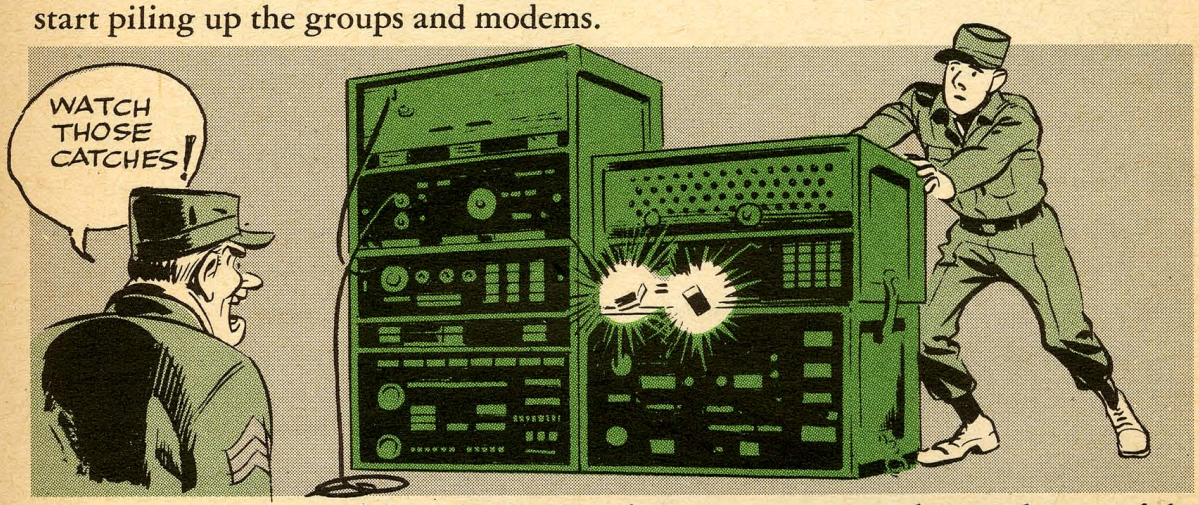

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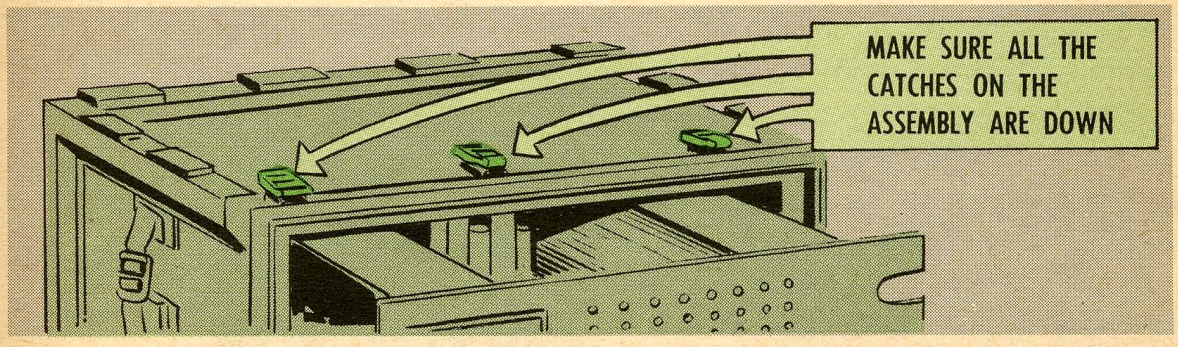

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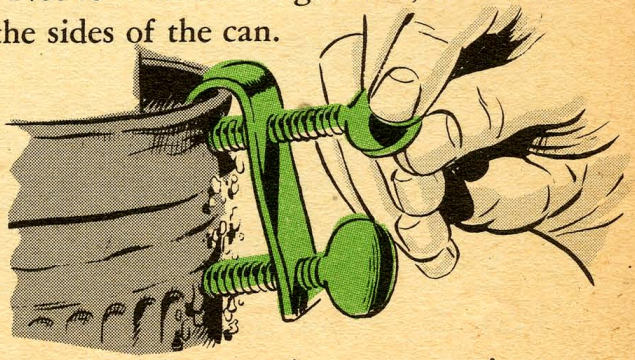
CONTRIBUTIONS

Dear Editor,

Since those 32-gal corrugated cans were issued to replace the older 24-gal ones the combustion chambers of those immersion heaters have been acting like a champagne cork—popping up, that is.

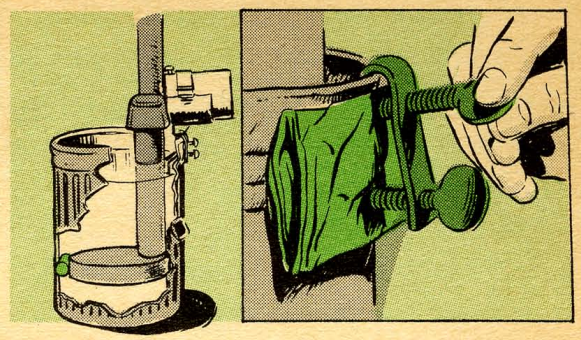
When you put an immersion heater into a 32-gal can of water, the chamber rises, throwing the heater out of kilter. Not so with the 24-gal cans, because the combustion chamber fits tight against the sides of the can.



This bad fit leads to a serious situation. Some people get the idea that the clamp holding the heater to the can isn't tight enough. So, they tighten and tighten and tighten—until they either put a hole in the can or otherwise damage the zinc coating. Once that's done, they might as well forget about using the can for cleaning mess equipment,

because the Medical people consider it a health hazard when any zinc is chipped off. Furthermore, when a can's damaged, it can't be re-coated.

If you wanna get a good tight fit and at the same time protect the can, take an empty can, size 303 or 2½, and put it between the side of the combustion doughnut and the side of the can on the bottom just opposite the heater flue. Or, you can use a flattened-out can between the thumb screws of the clamp and the side of the can.



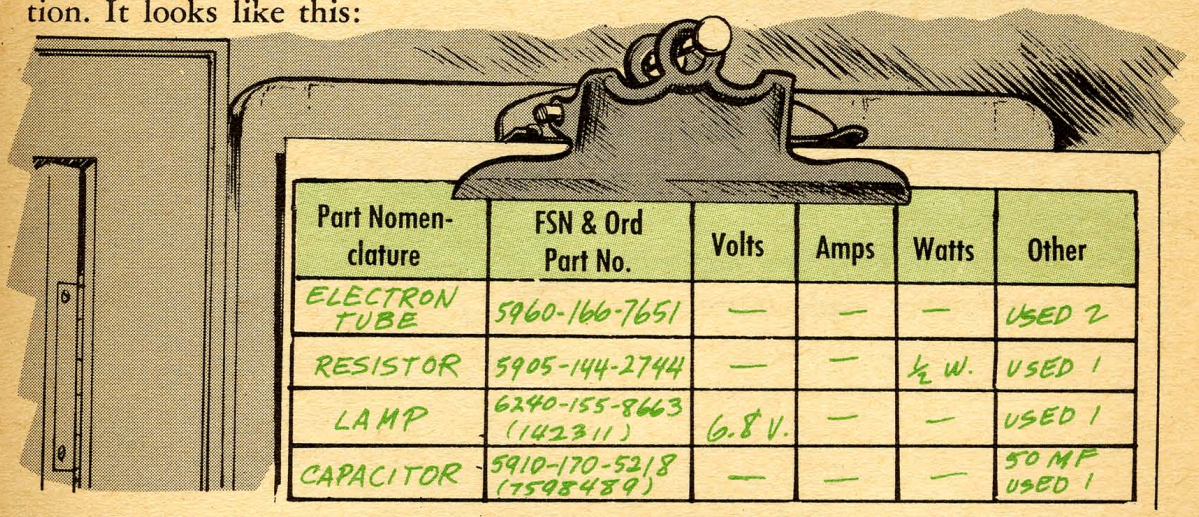
Sgt M. S. Schultz

PARTS PUZZLE?

Dear Editor,

We're set up as a dual Nike-Ajax site. We don't have a supply man for each system. So, to save the supply man and us from hither-and-yon around reporting or getting replacement parts, we worked out a plan that fits the bill:

Every day, when our boys check the equipment, they mark down what parts they need, listing name and number of the part, and any other helpful description. It looks like this:



Part Nomenclature	FSN & Ord Part No.	Volts	Amps	Watts	Other
ELECTRON TUBE	5960-166-7651	—	—	—	USED 2
RESISTOR	5905-144-2744	—	—	½ W.	USED 1
LAMP	6240-155-8663 (142311)	6.8 V.	—	—	USED 1
CAPACITOR	5910-170-5218 (7598489)	—	—	—	50 MF USED 1

We hang this list on a clipboard from one of the section doors, and put the defective part in a box nearby. When the supply man comes around, he goes over the list to see what's needed. When he brings the part, he puts it in the box and crosses the item off the list.

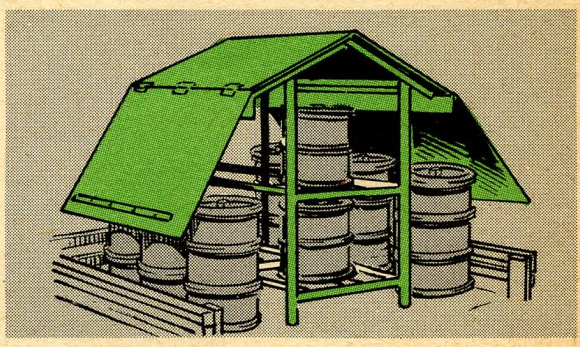
This sure saves a lot of telephoning as well as a lot of shoe leather.

The IFC Gang
D Btry, 1st Msl Bn
Tolchester, Md.

FUEL REFUGE

Dear Editor,

We think we've just about solved the M3 fuel storage problem at our Nike-Ajax site. As you know, the drums shouldn't be exposed to direct sun rays, and it's not a good idea to store 'em inside either, since there's always the chance of fire. And according to TM 9-1903 you gotta have a 50-foot cleared area around the fuel storage area.



With this in mind, we built an all-metal double-decker outdoor storage hut, complete with hinged roof. We used scrap galvanized pipe for the frame and sheet metal for the roof. (We'd have used corrugated for the roof if we'd had any.)

The frame is large enough to hold about 10 drums, stored with the bung up. The two-story effect gives us maximum use of space, and the hinged roof lets us load and unload the drums with no sweat.

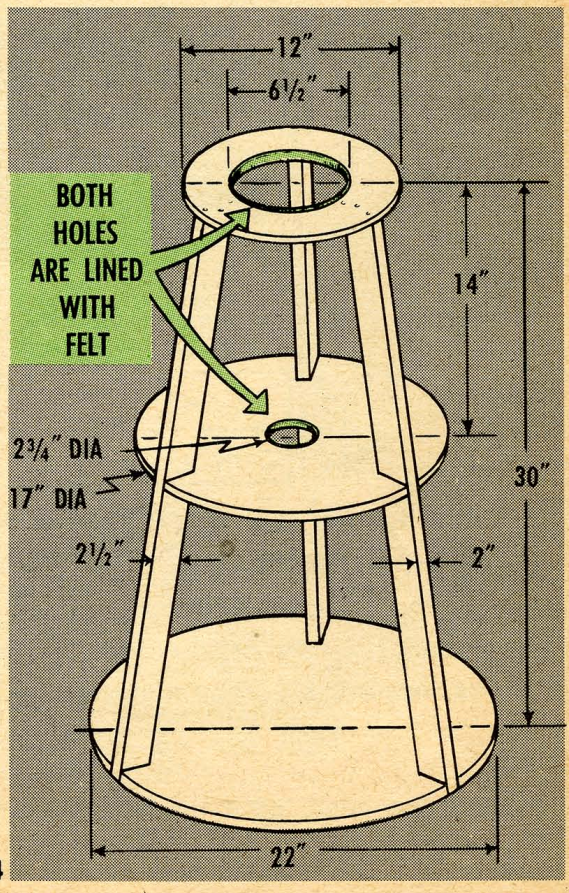
WO Camfield
A Btry, 4th Msl Bn

HOLD YOUR NOSE

Dear Editor,

It used to be it'd take two men to install the nose warhead in our Nike-Ajax missiles. Or, if one man tried it, he'd about bust his back.

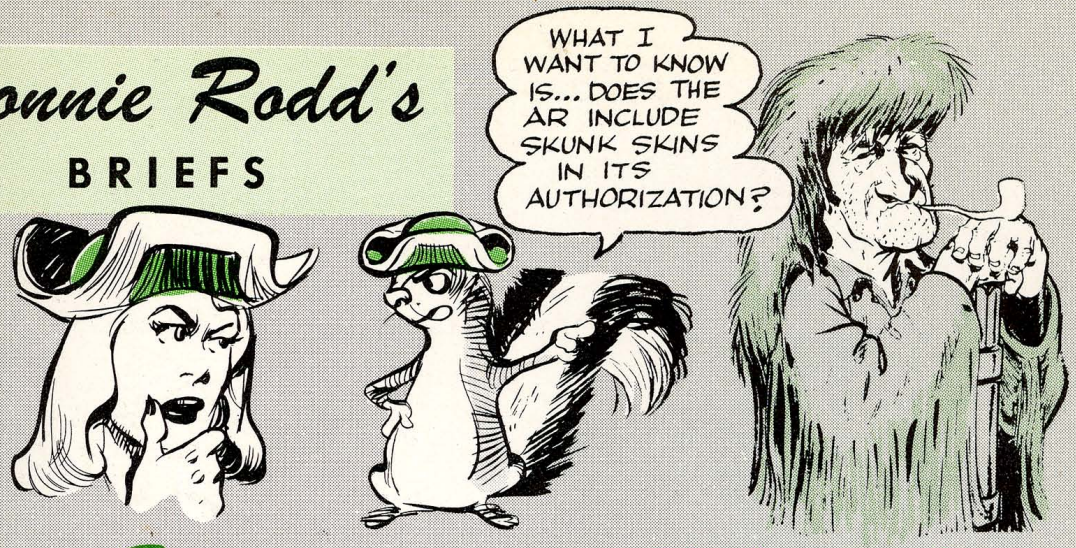
We got a brainstorm, tho, and with some scrap lumber made ourselves a support for the nose section so that one man can install the nose warhead with no sweat.



SFC Oscar L. Davis
Homewood, Ill.

(Ed Note—Good deal . . . long as nobody forgets to line those holes with heavy felt weather stripping. You can fasten the felt to the wood with Adhesive: Syn-ru liquid, general bonding, FSN 8040-264-5840. The adhesive's in your Ord 7 SNL Y2, dated April 1958)

Connie Rodd's BRIEFS



Tape it

You having trouble with battered record paper on your Nike-Ajax or Hercules event recorder? Seems the spring clip in the takeup drum assembly on the Model 1712 recorder is making a mess out of the paper. Until the clip is replaced by a better one, attach the paper to the drum assembly with two pieces of 1-in long masking tape.

Herc forms

It's information time for you guys who pull daily, weekly and monthly checks on the Nike-Hercules acquisition radar, missile and target track radars, computer and recorder group. The DA Forms you want to use for these checks are 9-27 through 9-37, which are listed in DA Pamphlet 310-2. Each system starts off with a 60-day supply as initial issue. After they're used up you can requisition new ones through your normal publication supply channels.

Stop that seat

Do you M48A2 tankers have trouble with the loader's seat hitting the Li'l Joe air cleaner? Did you see MWO 9-2350-208-20/2 (17 June 58)? It has an **urgent** fix about welding a "stop" on the bracket assembly so the turret can be traversed without damaging the air cleaner.

Tight is right

Front spring shackles can end up in sad shape when you forget to check for tight draw bolts on your Model 424 2½-ton stake and platform commercial trucks. The tapered ends on the shackle pin make it easy for a loose bolt to let the shackle plate work off. Either keep bolts tight—or try a cotter pin and castellated nut deal to keep 'em right.

Stay in neutral

Lo 9-2320-210-10 (19 Jan 59), says it: Leave your G749-series Hydra-Matic transmissions idling in NEUTRAL when checking transmission oil level. No more shifting to F-1 HIGH range for your oil check. The transfer control lever stays in UP ENGAGED position according to para 39b in TM 9-8024 (Oct 55).

Fill in the blanks

Y'wanna be sure, next time you're firing blank rounds from your artillery weapons, that you make a note of 'em in your Gun Book and identify 'em as such. The boys with the slide rules want to know **everything** you've fired including blanks, so's they can improve your weapon and design others.

Would You Stake Your Life on the Condition of Your Equipment?

YOU DID A FINE JOB CLEANING THE JEEP... BUT

YOUR RADIO'LL TAKE RAIN OR SNOW

BUT YOU CAN KILL IT WITH A WATER HOSE